



P R O J E C T M A N U A L

ADA CONCRETE HANDICAP RAMP INSTALLATION ROANOKE, VIRGINIA

Invitation to Bid No. 17-03-14

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Issued By:

**Purchasing Division
Monica Cole, Purchasing Supervisor
215 Church Avenue, S.W., Room 202
Roanoke, Virginia 24011
(540) 853-2871**

CITY OF ROANOKE, VIRGINIA

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INVITATION TO BID

CITY OF ROANOKE, VIRGINIA

Sealed Bids for:

ADA CONCRETE HANDICAP RAMP INSTALLATION

ROANOKE, VIRGINIA

This Project is generally described as all labor and materials for demolition and disposal of existing sidewalk or non-ADA compliant curb cut ramps, excavation, fill, backfill, compaction, forming, concrete, asphalt patch, detectable warning plates, and topsoil and seed/mulch as required. This work shall also include removal and reinstallation of adjacent curb, curb and gutter, sidewalk, and pavement as necessary to accommodate construction and to ensure compliance with ADA requirements.

INVITATION TO BID NO. 17-03-14

Sealed bids will be received by the City of Roanoke Purchasing Division, Noel C. Taylor Municipal Building, 215 Church Avenue, S.W., Room 202, Roanoke, Virginia 24011, at or before 2:00 p.m., local time, on January 23, 2017, at which time all bids received will be publicly opened and read. Bids received after 2:00 p.m. will not be accepted or considered. The time of receipt shall be determined by the time clock stamp in the Purchasing Office, or if it is not working, such time shall be determined by the Purchasing official who is to open the bids. This project is generally described as set forth above.

If the Noel C. Taylor Municipal Building is closed for business at the time scheduled for the proposal opening, the sealed proposal will be accepted and opened on the next business day of the City, at the originally scheduled hour.

The Instructions to Bidders, plans, specifications, the Contract, and other Contract Documents are incorporated herein by reference. Copies of these items may be examined during business hours in the Purchasing Division, Noel C. Taylor Municipal Building, 215 Church Avenue, S.W., Room 202, Roanoke, Virginia 24011 (Phone: 540-853-2871). Bidders are cautioned to review bid documents thoroughly before submitting a bid. Copies of the documents may be downloaded from the City's Vendor Self Service (VSS) at <https://VSS.roanokeva.gov> as well as the Current Bids/RFP Requests tab on the Purchasing Division's web page at www.roanokeva.gov/purchasing. The City will not be responsible for documents obtained from any other source.

All Contract Documents prepared and/or furnished by the City shall be the exclusive property of the City of Roanoke, Virginia, and shall not be used for any other project(s).

Each bidder is solely responsible for ensuring that such bidder has the current complete version of the Bid Documents prepared for the project, including any addenda issued by the City, before submitting a bid.

A non-mandatory pre-bid conference will be conducted on January 10, 2017, at 11:00 a.m., local time, at 215 Church Avenue, SW, Room 206, Roanoke, Virginia 24011, in the Purchasing Conference Room. It is strongly recommended that Bidders attend this conference.

Bidders and all subcontractors are required to comply with all applicable city, state, and federal laws, ordinances, and regulations; and are required to be properly licensed under Sections 54.1-1100, et seq., Code of Virginia (1950), as amended. Bidders shall deposit with their bid a Bid Security executed in the amount and form stipulated in the Instructions to Bidders.

The City expressly reserves the right to cancel this ITB and/or reject any or all bids, to waive any informality or irregularity in the bids received, and to accept a bid from the lowest responsive and responsible bidder which is deemed to be in the best interest of the City.

If an award is made for the item(s) and/or services requested, a notice of award will be made which will be posted to a file in the City's Purchasing Division, Room 202, telephone no. 540-853-2871, and notification of such award will be made available for Public view in the lobby of the Noel C. Taylor Municipal Building, 215 Church Ave., S.W., Roanoke, VA. 24011, as well as, on City's electronic procurement website.

To determine the lowest responsive and responsible bidder who may be awarded a Contract for the Work, the criteria set forth in or requested pursuant to the Instructions to Bidders or in the Bid Documents may be considered.

By submitting a bid, each bidder agrees that this is a solicitation of bids and each bidder agrees to be solely responsible for the cost or expense of its bid and the City shall have no responsibility for such costs or expenses.

If a certain brand, make, item or manufacturer is specifically and exclusively required or called for in the plans, specifications, or other contract documents, then that brand, make, item, or manufacturer shall be used unless otherwise agreed to by the City, in its sole discretion.

If the bid by the lowest responsive and responsible bidder exceeds available funds, the City reserves the right to negotiate with the apparent low bidder pursuant to Section 2.2-4318 of the Code of Virginia. The conditions and procedures under which such negotiation may be undertaken are set forth in Section 2.2-4318, and Section 14.3 of Instructions to Bidders. Any such negotiated Contract shall be subject to final approval by the City in its sole discretion.

Bids may not be withdrawn for a period of sixty (60) calendar days after the opening of bids unless the bid is substantially lower than the other bids because of a clerical error as defined in Section 2.2 – 4330, of the Code of Virginia (1950), as amended. Pursuant to Section 2.2 - 4330 (B)(1), the bidder shall give notice in writing and shall submit the original work papers with such notice to the City of its claim of right to withdraw the bid within two (2) business days after the opening of bids.

The Successful Bidder shall comply with the Code of Virginia nondiscrimination provisions of Section 2.2-4311 and the Drug-free workplace provisions of Section 2.2-4312.

Pursuant to Code of Virginia, Section 2.2 - 4343.1, be advised that the City of Roanoke does not discriminate against faith-based organizations.

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CITY OF ROANOKE, VIRGINIA

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CITY OF ROANOKE, VIRGINIA

INSTRUCTIONS TO BIDDERS

SECTION 1. DEFINITIONS

Definitions contained in Section 1 of the General Conditions are incorporated herein by reference. The bidder should refer to the General Conditions for definitions used in the Contract Documents. Whenever used in the General Conditions or in the Contract Documents, the following terms have the meanings indicated, which are applicable to both the singular and plural and the male and female gender thereof, and where applicable to any other legal entity such as a corporation, partnership, limited liability company, etc.

The section and paragraph headings are inserted for convenience only.

SECTION 2. EXAMINATION OF SITE AND CONTRACT DOCUMENTS

- 2.1** Each bidder is responsible for examining carefully the site of the Work and the Contract and Bid Documents relating to the Work. By submitting a bid, the bidder acknowledges and agrees that it has examined and considered the conditions to be encountered at and adjacent to the site, the character, quality, and quantities of work to be performed, the material to be furnished, other requirements of the Contract Documents, and to have waived any claim or objection based thereon. Claims as a result of failure to have done such examination will not be considered by the City. See Section 8 of the General Conditions entitled "Conditions at Site."
- 2.2** Each bidder shall promptly notify, in writing, the Purchasing Division of any ambiguity, inconsistency, or error which may be discovered upon examination of the Invitation to Bid, any Bid Documents, and/or any related documents.

SECTION 3. CLARIFICATION AND ADDENDA

- 3.1 Contact:** Direct contact with any City employee without the permission of the Purchasing Manager or her designated representative, on the subject of this bid, is strictly forbidden. Violation of this Instruction may result in disqualification of Bid.
- 3.2 Questions on Contract Documents:** All questions about the meaning or intent of the Contract Documents shall be directed to the Purchasing Division. Questions received less than seven (7) calendar days prior to the date for opening bids may not be answered. Bidders may only rely upon written addenda issued by the Purchasing Division and no other communication or interpretation, whether oral or written, shall have any effect or efficacy.
- 3.3 Addenda:** If you download this ITB from the City website and intend to submit a proposal, you should notify Purchasing that you have done so. However, each Bidder is solely responsible for ensuring that such Bidder has the current,

complete version of the ITB documents, including any addenda, before submitting a bid. Receipt by the bidder of such addendum should be acknowledged on the Bid Form and/or addendum. Addenda will be posted on Vendor Self Service (VSS) at <https://VSS.roanokeva.gov> as well as the Current Bids/RFP Requests tab on the Purchasing Division's web page at www.roanokeva.gov/purchasing. The City is not responsible for any ITB obtained from any source other than the City. Contact Monica Cole, Purchasing Supervisor, by phone at 540-853-5268, or by email at monica.cole@roanokeva.gov.

3.4 Interpretation: All decisions made in good faith by the Purchasing Manager on the meaning or interpretation of the Contract Documents shall be final.

3.5 Bidders Responsibility: All bidders are responsible for ensuring that they have received and examined all addenda that may have been issued before submitting their bid.

If you download this Invitation to Bid from the City website and intend to submit a bid, you should notify Purchasing. The City is not responsible for any Invitation to Bid obtained from any source other than the City. Contact Purchasing by telephone at (540) 853-5268, by fax at (540) 853-1513 or by email at monica.cole@roanokeva.gov.

3.6 Quantities: Where the bid documents stipulate a unit price, the quantities of the work and material set forth in the proposal form or on the plans approximately represent the work to be performed and material to be furnished and are for the purpose of comparing the bids on a uniform basis. Payment shall be made to the Contractor only for the actual quantities of work performed or material furnished in accordance with the plans and specifications and it is understood that the quantities may be increased or decreased as provided in the General Conditions without in any way invalidating the bid prices.

SECTION 4. TIME FOR COMPLETION

4.1 Time for Completion: Unless otherwise stated or a specific time period is set forth on the Bid Form, each bidder shall indicate in the appropriate blank the number of consecutive calendar days required by such bidder to substantially complete the specified Work, within three hundred sixty-five (365) consecutive calendar days, with Final Acceptance to be achieved within thirty (30) consecutive calendar days thereafter. However, no such time period may exceed the number of consecutive calendar days set forth in the Bid Form.

4.2 Weather: The bidder, in preparing and submitting its bid, is required to take into consideration normal weather conditions. Normal weather means a range of weather conditions which might be anticipated, based on weather data for the past ten years. Unusual weather is weather which could not be anticipated based on such data. Normal weather conditions shall be determined from the public historical records available from the National Weather Service. The data sheets to be used shall be for the locality or localities closest to the site of the

Work. No additional compensation will be paid to the Contractor because of unusual weather conditions; however, an extension of time for unusual weather may be considered by the City as indicated in the General Conditions.

- 4.3 Liquidated Damages:** The amounts indicated on the Bid Form as step one and step two liquidated damages as described in the General Conditions (Section 21) shall be due from and paid by the Contractor to the City for each consecutive calendar day of delay in excess of the stated time required to complete the Work, unless modified by Change Order.

SECTION 5. CONTRACTORS' LICENSES, PERMITS, FEES, AND TAXES

- 5.1 State License:** Bidders and all subcontractors are required to comply with all applicable city, state, and federal laws, ordinances, and regulations, including, but not limited to, registration with the Virginia State Corporation Commission if required by law; and are required to be properly licensed in accordance with Sections 54.1-1100, *et seq.*, of the Code of Virginia, which presently requires one to be licensed as a "Class A Contractor" before submitting a bid of One Hundred Twenty Thousand Dollars (\$120,000) or more; or to be licensed as a "Class B Contractor" before submitting a bid of Ten Thousand Dollars to One Hundred Twenty Thousand Dollars (\$10,000 to \$120,000); or to be licensed as a "Class C Contractor" before submitting a bid of One Thousand Dollars to Ten Thousand Dollars (\$1,000 to \$10,000). There are also cumulative total amounts which can require a certain class of license and bidders should check these requirements as well. Bidders shall show evidence of being properly licensed and supply the documents required in Section 14.4 of these Instructions to Bidders. (See also Section 7 of the General Conditions.)
- 5.2 Other Licenses, Permits, Fees, and Taxes:** Successful Bidder is responsible for paying for all licenses, permits, fees, and taxes applicable to the project. Such charges and fees include, but are not limited to the applicable building permits, mechanical and electrical permits, hauling and dumping of material, and if applicable, such bidder will have to possess a City business license and be responsible for paying City of Roanoke business license taxes. See Section 3 of the General Conditions.
- 5.3 Virginia State Corporation Commission:** Each Bidder who is a stock or nonstock corporation, limited liability company, business trust, or a limited partnership or other business entity shall be authorized to transact business in the Commonwealth of Virginia as a domestic or foreign business entity if required by law. Each such Bidder shall include in its bid response the Identification Number issued to it by the Virginia State Corporation Commission (SCC) and should list its business entity name as it is listed with the SCC. Any Bidder that is not required to be authorized to transact business in the Commonwealth as a domestic or foreign business entity as required by law shall include in its bid response a statement describing why the Bidder is not required to be so authorized. (See Va. Code Section 2.2-4311.2).

SECTION 6. PREPARATION AND SUBMISSION OF BIDS

- 6.1 Bid Form:** Bids shall be submitted on the Bid Form furnished, or copy thereof, and shall be completed and signed in ink. A copy of the Bid Form is provided in these specifications for the information of bidders only. Except as may be otherwise stated, all blank spaces in the Bid Form should be filled in and under no conditions shall any changes be made in the phraseology of the Bid Form. Erasures or other changes in a bid amount must be explained or noted over the initials of the bidder. Bids containing any conditions, omissions, unexplained erasures, alterations or items not called for in the bid documents, or irregularities of any kind, may be rejected by the City as being incomplete and/or non-responsive. NO CHANGES MADE TO THE BID FIGURES BY NOTATIONS ON THE OUTSIDE OF THE ENVELOPE WILL BE CONSIDERED IN THE REVIEW AND TABULATION OF BIDS OR FOR ANY OTHER PURPOSE.
- 6.2 Escrow:** In accordance with Section 2.2 - 4334, of the Code of Virginia, for bids of \$200,000 or more for construction of highways, roads, streets, bridges, parking lots, demolition, clearing, grading, excavating, paving, pile driving, miscellaneous drainage structures, and the installation of water, gas, sewer lines and pumping stations, the Bid Form will include a space for the bidder to indicate an option to use the escrow account procedure in order to have retained funds paid to an escrow agent. Otherwise, unless stated in the Supplemental General Conditions, no escrow will be provided.
- 6.3 Signatures:** Each bid must give the full business address of the bidder and be signed by bidder with its usual signature. Bids by partnerships must furnish the full name of all partners and must be signed in the partnership name by one of the members of the partnership or an authorized representative, followed by the signature and designation of the person signing. Bids by corporations must be signed with the legal name of the corporation followed by the name of the state in which they are incorporated and by the signature and designation of the president or other person authorized to bind it in the matter. The name of each person signing shall also be typed or printed below each signature. A bid by a person who affixes to his signature the word "President," "Authorized Agent," or other designation without disclosing such principal firm or employer, may be held to be the bid of the individual signing. Satisfactory evidence of the authority of the president or authorized agent signing on behalf of the corporation shall be furnished upon request by the City.
- 6.4 Bid Amounts:** Bidders shall indicate in the appropriate blank spaces on the Bid Form the amounts for the base bid and any alternates, written with ink or typed, in both words and figures. In the event of a discrepancy between the words and figures expressed in the base bid or alternates, the word amount shall govern. Any unit prices for separate items as called for on the Bid Form shall be written with ink or typed in figures in the appropriate blanks.
- 6.5 Bid Package Checklist:** Bidders shall deposit with their bid the documents or information set forth in the Bid Package Checklist. See Section 16.

SECTION 7. RECEIPT AND OPENING OF BIDS

- 7.1 Delivery of Bid:** It is the responsibility of the bidder to assure that its bid is delivered to the place designated for receipt of bids and prior to the time set for receipt of bids. No bids received after the time designated for receipt of bids will be considered.
- 7.2 Receipt of Bid:** The Bid Form, the Bid Security, and all other documents required to be submitted with the bid shall be enclosed in a sealed opaque envelope and addressed as follows:

Purchasing Division
Noel C. Taylor Municipal Building
215 Church Avenue, S.W., Room 202
Roanoke, Virginia 24011

Place on front of the envelope the project title and bid number as indicated at the top of the Invitation to Bid. Place on front of the envelope the bidder's name, mailing address, and Virginia Contractor number.

- 7.3 Opening of Bid:** Bids will be opened and read at the time and place stated in the Invitation to Bid. The contents may be made public in accordance with Section 2.2-4342 of the Code of Virginia. The officer or agent of the City, whose duty it is to open them, will decide when the specified time has arrived. No responsibility will be attached to any officer or agent for the premature opening of a bid not properly addressed and identified.
- 7.4 Withdrawing Bid:** After the date of opening of bids, no bid may be withdrawn for at least sixty (60) calendar days after such opening date, except as provided in Section 12 of these Instructions to Bidders.

SECTION 8. BID SECURITY

Each bid, for construction services in excess of \$100,000, must be accompanied by a Bid Security in an amount equal to five (5%) percent of the maximum possible bid price in accordance with Sections 2.2-4336 and 4338 of the Code of Virginia. The Bid Security shall be furnished in one of the following forms:

- a.** Bid Bond, in a form substantially as provided in the Contract Documents, made payable to the City of Roanoke and properly executed by the bidder as Principal and a Corporate Surety authorized to transact business in the Commonwealth of Virginia. Attorneys-in-fact who execute Bid Bonds must file with the bond a certified copy of their Power of Attorney.

- b. Certified Check, cashier's check, or cash deposited with the City of Roanoke Treasurer in the face amount required for the Bid Security and made payable to the City of Roanoke.
- c. Personal Bond, Property Bond, or Letter of Credit issued by an authorized financial institution in the face amount required for the Bid Security, made payable to the City of Roanoke. These forms of security shall be submitted for review and must be approved by the City Attorney, in his sole discretion, at least three (3) working days prior to receipt of bids. Approval will be based upon a determination that the form of security offered will adequately protect the interests of the City as equivalent to a corporate surety's bond.
- d. For return of Bid Security, see Sections 13 and 14 of these Instructions to Bidders.

SECTION 9. INTENT

- 9.1 **Work Required:** The City requires that the successful bidder perform a complete and satisfactory job in accordance with the Contract Documents.
- 9.2 **Conflicts in Contract Documents:** Anything called for by one of the Contract Documents and not called for by the others shall be of like effect as if required or called for by all Contract Documents. In the case of conflict between the Contract Documents, the Contract Documents shall take precedence in the following order: The Contract; addenda starting with the last issued addendum; the Supplemental General Conditions; the General Conditions; the Special Conditions; the specifications with attachments; and the drawings.
- 9.3 **Work Not Described:** All work not specifically described in the Contract Documents, yet required to produce a fully functional and properly operating project shall be provided even though every item or minor detail for the proper installation or successful operation of the entire Work is not mentioned in the Contract Documents.
- 9.4 **Completion of Work:** The Successful Bidder acknowledges and agrees that it has taken into account in its bid the requirements of the bid and Contract Documents, local conditions, availability of material, equipment, labor, and any other factors which may affect the performance of the Work. The Successful Bidder agrees and warrants that it will complete the Work not later than the time period or date indicated for completion.

SECTION 10. MATERIAL AND WORKMANSHIP

- 10.1 **"Or Equal" Clause:** The particular brand, make of material, device, or equipment described in the Contract Documents establishes a standard of required function, economy of operation, dimension, appearance, and quality to be met by any proposed substitution. No substitution will be considered unless a written request for approval has been submitted by the bidder and has been received by the Purchasing Division at least ten (10) calendar days prior to the

date for receipt of bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data, and any other information necessary or required by the City for an evaluation. A statement setting forth any changes in other material, equipment, or work that incorporation of the substitute would require shall be included. The burden of proof of merit of the proposed substitute is upon the bidder.

10.2 Approval of Substitution: The City's decision of approval or disapproval of a proposed substitution shall be in its sole discretion and shall be final. If the Public Work Transportation Division approves any proposed substitution, such approval will be set forth in an addendum issued to all recorded bidders. Bidders shall not rely on approvals made in any other manner.

10.3 Adaptation Due to Substitution: The Successful Bidder shall be responsible for making all changes in the Work necessary to adapt and accommodate any equivalent product or item which it uses. The necessary changes shall be made at the Successful Bidder's sole expense.

SECTION 11. STATEMENT OF QUALIFICATIONS

Each bidder shall be prepared to submit evidence of qualifications, experience, and financial ability to perform the Work set forth in the Contract Documents, should such be required by the Contract Documents or requested by the Purchasing Division. Furthermore, each bidder must notify the Purchasing Division if bidder has been terminated from any contract or job in the last three (3) years and/or if bidder has been during the last three (3) years debarred from bidding on or performing any federal, state or local procurement or job. If so, bidder must supply details of such matters by separate written statements included with bidder's response. Any bidder who is currently debarred will not be eligible to bid on this project.

SECTION 12. ERRORS IN BIDS

12.1 Withdrawal of Bid: A bidder may withdraw its bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor, or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents, and material used in the preparation of the bid sought to be withdrawn.

12.2 Withdrawal Procedure: The bidder shall give notice in writing and shall submit the original work papers with such notice to the City of its claim of right to withdraw its bid within two (2) business days after the conclusion of the opening of bids as set forth in Section 2.2 - 4330 (B)(1), of the Code of Virginia.

- 12.3 Withdrawal Requirements:** Other applicable provisions of Section 2.2 - 4330, of the Code of Virginia shall apply to any errors in bids or any requested withdrawal due to errors in bids.

SECTION 13. REJECTION OF BIDS

- 13.1 Rejection of Bids:** The City reserves the right to cancel the Invitation to Bid, to reject any or all bids, to reject the bid of a bidder who is not in a position to perform the contract, or to waive any informalities in any bid.
- 13.2 Bid Security Return for Rejected Bids:** The Bid Security will be returned to all rejected bidders after the City has issued and posted an Award.
- 13.3 Bid Security Return for Unsuccessful Bids:** Should a bid not be accepted by the City within sixty (60) consecutive calendar days after the opening of bids, or within such other time specified in the Bid Documents, each bidder may obtain its Bid Security from the City.

SECTION 14. ACCEPTANCE OF BIDS, EVALUATION OF BIDS, AWARD OF CONTRACT, AND SECURITY REQUIREMENTS

- 14.1 Acceptance of Bids:** Each bidder should submit with its bid: documentation of bidder's legal name and indicate the type of business entity bidder is operating under; i.e., if a corporation, bidder should enclose a copy of the Certificate of Incorporation issued by the State Corporation Commission; if a partnership, bidder should enclose a copy of the relevant portions of the Partnership Agreement; if a limited liability company, bidder should enclose a copy of the Certificate of Organization.
- 14.2 Evaluation and Award to Lowest Responsive and Responsible Bidder:** To determine the lowest responsive and responsible bidder with respect to this bid, the following items may be considered so as to protect the interest of the City:
- a. The total base bid price plus the price of any alternates (aka- additive bid item) the City elects to accept, if any. (This is where a lump sum amount is required.) The City reserves the right to accept alternates in any order or combination.
 - b. If a unit price contract is requested, the total amount based on the estimated quantities as set forth in the Bid Form will be considered. (The listed unit prices for each item will control and any multiplication errors may be adjusted by the Purchasing Division using the proper estimated quantities.)
 - c. The ability, capacity and skill of the bidder to perform the contract or provide the services and/or items required.

- d. Whether the bidder can perform the contract promptly and within the time specified, without delay or interference.
- e. The character, integrity, reputation, judgment, experience and efficiency of the bidder.
- f. The quality of performance of previous contracts or services.
- g. The previous and existing compliance by the bidder with laws and ordinances relating to the contract, purchase or service.
- h. The equipment and facilities available to the bidder to perform the contract or provide the services and/or items.
- i. The sufficiency of the financial resources and ability of the bidder to perform the contract or provide the services and/or items.
- j. The quality, availability and adaptability of the supplies, materials, equipment or services to the particular use required.
- k. The ability of the bidder to provide future maintenance, parts and service for the use of the subject of the purchase or contract, if required.
- l. Bids shall be evaluated based on the requirements set forth in this Invitation to Bid, and other criteria to determine acceptability such as inspection, testing, quality, workmanship, delivery, suitability for a particular purpose and life cycle cost. The City, in its sole discretion, may elect to waive an informality in any bid.

Should a Contract be awarded to a bidder, it will be awarded to the lowest responsive and responsible bidder. If an award of a contract is made, notice of the award, or the announcement of the decision to award, will be made by posting a notice of such award or announcement in the foyer area of the second floor of the Noel C. Taylor Municipal Building at 215 Church Avenue, S.W., Roanoke, Virginia 24011, as well as, on City's electronic procurement website.

14.3 Negotiation of Bid: If the bid by the lowest responsive and responsible bidder exceeds available funds, the City reserves the right to negotiate with the apparent low bidder pursuant to Section 2.2-4318 of the Code of Virginia. The conditions and procedures under which such negotiation may be undertaken are that the appropriate City officials shall determine that the lowest responsive and responsible bid exceeds available funds and notify such bidder in writing of its desire to negotiate. Thereafter, negotiations with the apparent low bidder may be held to obtain a Contract within available funds involving discussions of reduction of quantity, quality, or other cost saving mechanisms. Any such negotiated Contract shall be subject to final approval of the City, in the sole discretion of the City.

14.4 Contract Execution: The Successful Bidder shall be required, within fourteen (14) consecutive calendar days after receipt of the Contract, to return the signed Contract, and furnish to the City all other documents as enumerated hereinafter:

- a. Performance Security (if applicable)
- b. Labor and Material Payment Security (if applicable)
- c. Certificate of Insurance
- d. Escrow Agreement (if applicable)
- e. Employment Projection Form (if applicable):

If applicable, the Successful Bidder for a project requiring at least thirty (30) calendar days work will be required to submit a completed Employment Projection Form along with the signed Contract. A copy of this form is included in these bid documents. Completion of the form does not create an obligation on the part of the bidder to hire any referred applicant.

14.5 Security: A Performance Security and a Labor and Material Payment Security each in the amount of one hundred percent (100%) of the contract amount for all contracts in accordance with Sections 2.2-4337 and 4338 of the Code of Virginia, shall be furnished by the Successful Bidder in one of the following forms:

- a. A Performance Bond and a Labor and Material Payment Bond, on forms as provided in the Contract Documents, made payable to the City of Roanoke, properly executed by the successful bidder as Principal and a Corporate Surety authorized to transact business in the Commonwealth of Virginia. Attorneys-in-fact who execute the bonds must file with each bond a certified copy of their Power of Attorney.
- b. Certified Checks, Cashier's Check, or Cash Escrow in the face amount required for the Performance Security and the Labor and Material Payment Security each made payable to the City of Roanoke.
- c. Personal Bond, Property Bond, or Letter of Credit issued by an authorized financial institution in the face amount required for the Performance Security and the Labor and Material Payment Security, made payable to the City of Roanoke. These forms of security must be approved by the City Attorney, in his/her sole discretion. Approval will be based upon a determination that the form of security offered will adequately protect the interests of the City as equivalent to a corporate surety's bond.

14.6 Escrow Agreement Form: In the event the Contract meets the requirements as stipulated in Section 6.2 of these Instructions to Bidders and the Successful Bidder elects to use the escrow account procedure, the Escrow Agreement

Form, as provided in the Contract Documents, shall be executed and submitted to the City within fifteen (15) calendar days after receipt of written notification of bid acceptance. If the executed Escrow Agreement Form is not submitted within the fifteen-day period, the Successful Bidder shall forfeit and waive the rights to the use of the escrow account procedure.

- 14.7 Bid Security Return for Successful Bid:** Upon the execution of the Contract and approval of the Performance and Payment Securities, the Bid Security will be returned to the Successful Bidder upon request. Should the successful bidder fail or refuse to execute the Contract or furnish the required Performance and Payment Securities within the stipulated time, the Bid Security shall be due and paid to the City and the City shall be entitled to collect the Bid Security. In addition, the City may pursue any and all other remedies available to it at law or in equity against said bidder.

SECTION 15. ETHICS IN PUBLIC CONTRACTING

The provisions, requirements, and prohibitions as contained in Sections 2.2 - 4367 through 2.2-4377, of the Code of Virginia, pertaining to bidders, offerors, contractors, and subcontractors are applicable to this project. Direct contact with any City employee without the permission of the Purchasing Manager or her designated representative, on the subject of this bid, is strictly forbidden. Violation of this Instruction may result in disqualification of Bid.

SECTION 16. BID PACKAGE CHECKLIST

The following items must be completed and included in your bid package. Failure to include all required forms may result in rejection of the bid. If any of these documents were not included with your Project Manual, please contact the Purchasing Division at (540) 853-2871.

- a. Completed Bid Form (all pages)
- b. Properly Executed Bid Security (Bid Bond, Certified or Cashier's Check, etc., if applicable)

SECTION 17. PROTESTS

Any bidder who wishes to protest or object to any award made or other decisions made pursuant to the Invitation to Bid may do so only in accordance with the provisions of Sections 2.2-4357, 4358, 4359, 4360, 4363, and 4364 of the Code of Virginia, and only if such is provided for in such Code section.

SECTION 18. MISCELLANEOUS

- a. No bidder shall confer on any public employee having official responsibility for a purchasing transaction any payment, loan, subscription, advance, deposit or money, service, or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value is exchanged.
- b. The City may make investigations to determine the ability of the bidder to perform or supply the services or items as described in this Invitation to Bid. The City reserves the right to reject any bid if the bidder fails to satisfy the City that it is qualified to carry out the obligations of the proposed contract.
- c. The Successful Bidder must comply with the nondiscrimination provisions of Section 2.2-4311 of the Code of Virginia, which are incorporated herein by reference.
- d. The Successful Bidder must comply with the drug-free workplace provisions of Section 2.2-4312 of the Code of Virginia, which are incorporated herein by reference.
- e. It is the policy of the City of Roanoke to maximize participation by minority, women, small, and service disabled veteran-owned businesses in all aspects of City contracting opportunities.
- f. The Successful Bidder shall comply with all applicable City, State, and Federal laws, codes, provisions, and regulations.
- g. Providers of any outside services shall be subject to the same conditions and requirements as the Successful Bidder in regards to law, code or regulation compliance. The City reserves the right of approval for any subcontract work, including costs thereof.
- h. This Invitation to Bid and all responses are subject to Section 2.2-4342 of the Code of Virginia regarding public inspection of records and the procedures a bidder must follow to protect trade secrets and proprietary information.
- i. Conflict of Interests Act. The provisions, requirements and prohibitions as contained in Sections 2.2-3100, et. seq. of the Code of Virginia are applicable to this Invitation to Bid.
- j. The procurement provisions of the Code of the City of Roanoke (1979), as amended, Sections 23.2-1, et. seq., as well as the City Procurement Manual, apply to this Invitation to Bid, unless specifically modified herein. The City's Procurement Manual can be reviewed at the Purchasing office, **as well as on City's electronic procurement website.**
- k. Insurance. Successful Bidder, and any of its subcontractors, shall, at its or their sole expense, obtain and maintain during the life of the resulting contract the insurance policies and bonds required. Any required insurance policies and bonds shall be effective prior to the beginning of any work or other performance by Successful Bidder, or any of its subcontractors, under any resultant contract.

The policies and coverages required are those as may be referred to in the sample contract and/or the general conditions or other documents of this Invitation to Bid.

- I. Each bidder is to notify the Purchasing Division if any of bidder's owners, officers, employees, or agents, or their immediate family members, is currently, or has been in the past year, an employee of the City of Roanoke or has any responsibility or authority with the City that might affect the procurement transaction or any claim resulting therefrom. If so, please provide the Purchasing Division with the complete name and address of each such person and their connection to the City of Roanoke. Each bidder is advised that the Ethics in Public Contracting and Conflict of Interests Act of the Code of Virginia, as set forth in this Invitation to Bid, apply to this Invitation to Bid. Such information should be provided in writing before the bid opening date or may also be provided with the bid response.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

CITY OF ROANOKE, VIRGINIA

BID FORM

DATE: _____

SUBMITTED BY: _____
(Exact Legal Name of Bidder)

NOTE: ALL PAGES OF THE BID FORM ARE TO BE INCLUDED IN THE COMPLETED BID. ALSO, BIDS CONTAINING ANY CONDITIONS, OMISSIONS, UNEXPLAINED ERASURES, ALTERATIONS OR ITEMS NOT CALLED FOR IN THE BID, OR IRREGULARITIES OF ANY KIND, MAY BE REJECTED BY THE CITY AS BEING NON-RESPONSIVE. NO CHANGES ARE TO BE MADE TO THE BID FORM. ANY CHANGES TO A BID AMOUNT MUST BE INITIALED BY THE AUTHORIZED PERSON SIGNING THE BID FORM.

The undersigned hereby proposes and agrees, if this bid is accepted by the City of Roanoke, to enter into a Contract with the City of Roanoke, Virginia, (hereafter - City or Owner) to furnish all equipment, materials, labor, and services necessary to provide **installation of concrete ADA handicap curb ramps at various locations within the City of Roanoke and associated Work**, Invitation to Bid No. 17-03-14, in accordance with the Contract Documents as prepared by or for the City of Roanoke.

The undersigned agrees that the following Unit Prices will become a part of the Contract and in accordance with the Contract Documents shall be used for the purpose of adjusting the Contract Sum up or down for changes made by the City for increased or decreased quantities of work from estimated quantities as indicated on the Drawings and/or in the Specifications. The Unit Prices shall include all labor, materials, equipment, services, overhead, profit, insurance, bonds, taxes, etc., to cover the finished work of the several kinds called for in place. There is no guaranteed maximum or minimum amount of the quantities for materials listed below and/or set forth in the List of Locations provided herein.

ITEM DESCRIPTION	ESTIMATED QUANTITIES	UNIT	UNIT PRICE	EXTENDED BID AMOUNT
4" CONCRETE SIDEWALK-using A4 (4000 psi) concrete	10,000	SF	\$_____	\$_____
INFARED ASPHALT	2,000	LF	\$_____	\$_____
VDOT STD CG-2 CURB	1,180	LF	\$_____	\$_____
VDOT STD CG-12 HANDICAP RAMP (TYPE A)	102	EA	\$_____	\$_____

VDOT STD CG-12 HANDICAP RAMP (TYPE B)	98	EA	\$_____	\$_____
VDOT STD CG-6 CURB & GUTTER	820	LF	\$_____	\$_____
TOTAL BID				\$_____

The undersigned acknowledges the receipt of the following addenda to the Contract Documents:

Addendum Number _____ Dated _____
Addendum Number _____ Dated _____
Addendum Number _____ Dated _____

The undersigned hereby agrees, if this bid is accepted by the City, to commence work with an adequate force and equipment on the date stipulated in the written "Notice to Proceed" from the Transportation Division Manager and, unless otherwise directed by the Transportation Division Manager to complete all Work as identified in the **List of locations** within three hundred sixty-five (365) consecutive calendar days from the date stipulated in the written "Notice to Proceed" and to pay as liquidated damages the sum of Two Hundred and 00/100 Dollars (\$200.00) per day as step one liquidated damages and the sum of One Hundred Fifty and 00/100 Dollars (\$150.00) per day as step two liquidated damages to the City of Roanoke for each consecutive calendar day in excess of the time indicated to fully and satisfactorily complete the Work. **City reserves the right to add to and/or remove from the list of locations provided with this ITB as it may deem necessary and appropriate.**

By submitting a bid, the undersigned agrees it will not withdraw its bid during the time period provided for in the Invitation to Bid, except as provided for therein.

The Bidder, by submission of this bid, hereby certifies that such Bidder has read all of the bid documents and such Bidder is making the certifications contained in, required by, and/or referred to in the bid documents and agrees to be bound by such certifications. Such Bidder further agrees that Bidder, if awarded a contract for this Project, shall provide the work, services, materials, and any other items as required by the bid documents and in compliance with such bid documents, including but not limited to, any HUD documents, Federal, state, and/or local rules, regulations, and/or procedures contained in the bid documents and/or any resultant contract, or referred to therein. Furthermore, if there is any conflict in any of the documents, the more stringent provisions shall take precedence unless otherwise required by HUD, Federal, State, and/or local laws, documents, regulations, rules, and/or procedures, in which case they will take precedence in that order unless otherwise required by law.

The undersigned agrees that if this bid is accepted by the City, the failure or refusal of the undersigned to execute the Contract with the City and furnish to the City the required bonds and certificates of insurance within fourteen (14) consecutive calendar days from receipt of the Contract Documents may result in a payment of the Bid Security to the City as liquidated damages.

The attention of each bidder is directed to Code of Virginia, Sections 54.1-1100, et. seq., which requires certain licenses for contractors, tradesmen, and others. Each bidder is required to determine which license, if any, it is required to have under such sections. Complete the following:

Bidder _____ does have _____ does not have a Virginia Contractor's License. (Check appropriate blank.)

If bidder has a Virginia Contractor's License, circle the class bidder has and list the number.

Licensed "Class A", "Class B", or "Class C" Virginia Contractor Number _____

Identify Specialty _____

If bidder has another type of Virginia License, please list the type and number:

Type of license: _____ Number: _____

Bidder is a _____ resident or _____ nonresident of Virginia. (Check appropriate blank. See Code of Virginia, Sections 54.1-1100, et. seq.)

Virginia Code Section 2.2-4311.2 requires a bidder organized or authorized to transact business in the Commonwealth of Virginia pursuant to Title 13.1 or Title 50 of the Code of Virginia, as amended, or as otherwise required by law, to include in its bid the Identification Number issued to such bidder by the Virginia State Corporation Commission (SCC). Furthermore, any bidder that is not required to be authorized to transact business in the Commonwealth of Virginia as a domestic or foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall include in its bid a statement describing why the bidder is not required to be so authorized. Please complete the following by checking the appropriate line that applies and providing the requested information:

A. _____ Bidder is a Virginia business entity organized and authorized to transact business in Virginia by the SCC and such bidder's Identification Number issued to it by the SCC is _____.

B. _____ Bidder is an out-of-state (foreign) business entity that is authorized to transact business in Virginia by the SCC and such bidder's Identification Number issued to it by the SCC is _____.

C. _____ Bidder does not have an Identification Number issued to it by the SCC and such bidder is not required to be authorized to transact business in Virginia by the SCC for the following reason(s):

Please attach additional sheets of paper if you need more space to explain why such bidder is not required to be authorized to transact business in Virginia.

The undersigned states and certifies that it has made a best or good faith effort to seek the participation of and utilize small, minority, women, and service disabled veteran-owned businesses as suppliers and subcontractors whenever possible for this Project.

State the complete legal name of the bidder, exactly as it is recorded with the State Corporation Commission, if recorded there.

LEGAL NAME _____

BY _____ TITLE _____
(TYPED NAME:)

SIGNED NAME _____

State Corporation Commission Identification No. _____

DELIVERY ADDRESS _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

TELEPHONE _____ FAX _____

CONTACT EMAIL ADDRESS _____

ESCROW ACCOUNT REQUESTED (if applicable): YES _____ NO _____

DELIVERY OF BIDS: See Section 7.1 of the Instructions to Bidders.

Purchasing Division
Noel C. Taylor Municipal Building
215 Church Avenue, S.W., Room 202,
Roanoke, Virginia 24011

Place on front of the envelope the project title as indicated at the top of the Invitation to Bid. Place on front of the envelope the bidder's name, mailing address, and Invitation to Bid No.

ADA CONCRETE HANDICAP RAMP INSTALLATION
ROANOKE, VIRGINIA
ITB# 17-03-14

CITY OF ROANOKE, VIRGINIA
LIST OF LOCATIONS

Dated: DECEMBER 28, 2016

	LOCATION/CORNER	QTY
SW QUADRANT		
5th and	Shenandoah NE	2
	Shenandoah NW	2
	Shenandoah SE	2
	Shenandoah SW	2
	Centre NW	1
	Centre SW	1
	Loudon NW	1
	Loudon SW	1
	Gilmer NE	2
	Gilmer NW	2
	Gilmer SE	2
	Gilmer SW	2
	Patton NW	1
	Patton SW	1
	Fairfax NE	1
	Fairfax SE	1
	Fairfax SW	1
	Harrison NE	1
	Harrison NW	1
	Harrison SE	1
	Harrison SW	1
	Rutherford NW	1
	Rutherford SW	1
	Madison NW	1
	McDowell NE	1
	McDowell NW	1
	McDowell SE	1
	McDowell Sw	1
	Luck NE	1
10th and	Salem NE	2
	Salem NW	2
	Salem SE	2
	Salem SW	2
2nd and	Kirk NE	2
	Kirk NW	1

	Church NE	1
	Church SE	2
	Church SW	1
3rd and	Church NE	2
	Church NW	2
	Church SE	4
	Church SW	2
4th and	Church NE	1
	Church NW	1
	Church SE	1
	Church SW	1
5th and	Church SW	2
End of 500 Blk	Church NW	1
	Church SW	1
6th and	Campbell NW	2
	Campbell NE	2
7th and	Patterson NW	1
	Patterson NE	1
8th and	Campbell SE	1
	Campbell SW	1
10th and	Campbell NE	1
	Campbell SE	1
	Campbell SW	1
11th and	Campbell NE	1
	Campbell SE	1
	Campbell SW	1
12th and	Campbell NE	1
	Campbell NW	1
On Crystal Spring at	2001 parking area west side	1
	Back of 2017 Jefferson east side of street	1
Crystal Spring and	Evans Mill NE	1
	Evans Mill NW	1
Carolina and	26th SW	1
	28th NW	1
	28th SW	1
	29th SW	1
Rosalind and	27th SW	1
Rosalind and	27th SE	1
Memorial and	Dudding SW	1
	Denniston SE	1
Memorial	Across from Roanoke Ave.	1
13th at	Entrance to Black Dog Salvage SE	1

	Entrance to Black Dog Salvage SW	1
Midvale and	Hannah SE	1
Luck and	3rd NW	1
	4th NE	1
	4th NW	1
	5th SE	1
	5th NE	1
Franklin and	1st NW	1
	2nd SW	1
	2nd NW	1
	Day NE	1
	Day NW	1
	Elm SE	1
	Elm SW	1
	Elm NW	1
	Edinburgh NE	1
	Edinburgh SE	1
	Mountain NE	1
	Highland NE	1
	Highland SE	1
	Washington NE	1
	Walnut SE	1
	Walnut NE	1
	Walnut NW	1
	Walnut at crosswalk east side	1
	TOTAL SW LOCATIONS	125
SE QUADRANT		
20th and	Dale SE	1
	Dale SW	1
21st and	Dale SE	1
	Dale SW	1
Wellington and	Kensington SE	1
	Kensington SW	1
6th and	Dale SW	1
	Jamison NE	1
	Jamison NW	1
	Elm NW	1
	Mountain SE	1
	Mountain NE	1
	Highland SE Double	2
	Highland NW	1
	Bullitt SE	1
	Bullitt SW	1

7th and	Buena Vista NE	1
	TOTAL SE QUADRANT	18
NW QUADRANT		
10th and	Norfolk NE	1
	Norfolk NW	1
	Norfolk SE	1
	Norfolk SW	1
	Salem NE	1
	Salem NW	1
	Salem SE	1
	Salem SW	1
5th and	Orange NE Crosswalk	1
	Orange SE	1
	Orange SW	1
8th and	Orange SW	1
11th and	Orange NE	2
	Orange NW	2
	Orange SE	2
	Orange SW	2
12th and	Orange NE	1
	Orange NW	1
	Orange SE	1
	Orange SW	1
13th and	Orange NE	1
	Orange NW	1
	Orange SE	1
	Orange SW	1
14th and	Orange NE	1
	Orange NW	1
15th and	Orange NE	1
	Orange NW	1
	Orange SE	1
	Orange SW	1
16th and	Orange NE	1
	Orange NW	1
	Orange SE	1
	Orange SW	1
17th and	Orange SW	1
18th and	Orange NE	1
	Orange NW	1
	Orange SE	1
	Orange SW	1
20th and	Orange NE	1

	Orange NW	1
	Orange SW	1
Hershberger and	Rutgers SE	1
	Rutgers NW	1
	Williamson NE	1
	Hershberger Park NE	1
	Ordway SW	1
25th and	Shenandoah SE	1
	Shenandoah SW	1
24th and	Johnson SW	1
	Johnson NW	1
	TOTAL NW QUADRANT	55
NE QUADRANT		
Vinton Mill and	Normandy NE	1
	Normandy NW	1
	TOTAL NE QUADRANT	2
	TOTAL	200

CITY OF ROANOKE, VIRGINIA

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE, THE UNDERSIGNED, _____,
_____, as Principal, and _____,
_____, as Surety, are hereby held and firmly
bound unto _____, as City or Owner, in the penal sum of _____
_____ (\$_____) for the payment of which, well and truly to be
made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators,
successors and assigns. Signed, sealed, and delivered this ____ day of _____, 20____.

The condition of the above obligation is such that whereas the Principal has submitted to
the _____ a certain bid, attached hereto and hereby made a part
hereof, to enter a contract in writing for the _____

_____.

NOW, THEREFORE, if the bid shall be rejected, or if the bid shall be accepted and the
Principal shall execute and deliver to the City a Contract in the Form of Contract contained in
the proposed Contract Documents, properly completed in accordance with the bid, and shall
furnish bond for his faithful performance of the Contract and for the payment of all persons
performing labor or furnishing materials in connection herewith within the specified time period,
and shall in all other respects perform the agreement created by the acceptance of the bid, then
this obligation shall be void, otherwise the same shall remain in force and effect; it being
expressly understood and agreed that the liability of the Surety for any and all claims hereunder
shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of the
Surety and its bond shall be in no way impaired or affected by any extension of the time within
which the City may accept such bid; and the Surety does hereby waive notice of any such
extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunder set their hands
and seals, and such of them as are corporations have caused their corporate seals to be hereto
affixed and these presents to be signed by their proper officers, the day and year first set forth
above.

Attest:

Witness to signature of
Attorney-in-Fact:

Witness

_____(SEAL)
Principal

By _____
Title

_____(SEAL)
Surety

By _____
Attorney-in-Fact

(Attorneys-in-fact affix seal and attach current original or certified copy of power of attorney.)

(ONLY IF APPLICABLE)

(Name of Escrow Agent)

(Address of Escrow Agent)

("Surety") provides:

and mailed to

(Name and Address of Escrow Agent).

In order to assure full and satisfactory performance by the Contractor of its obligations under the contract, the City is required thereby to retain certain amounts otherwise due the Contractor. The Contractor has, with the approval of the City, elected to have these retained amounts held in escrow by the Escrow Agent. This agreement sets forth the terms of the escrow. The Escrow Agent shall not be deemed a party to, bound by, or required to inquire into the terms of, the contract or any other instrument or agreement between the City and the Contractor.

The City shall from time to time pursuant to its contract pay to the Escrow Agent amounts retained by it under the contract. Except as to amounts actually withdrawn from escrow by the City, the Contractor shall look solely to the Escrow Agent for the payment of funds retained under the contract and paid by the City to the Escrow Agent.

The risk of loss by diminution of the principal of any funds invested under the terms of this contract shall be solely upon the Contractor.

Funds and securities held by the Escrow Agent pursuant to this Escrow Agreement shall not be subject to levy, garnishment, attachment, lien, or other process whatsoever. Contractor agrees not to assign, pledge, discount, sell or otherwise transfer or dispose of his interest in the escrow account or any part thereof, except to the Surety.

IV.

Upon receipt of checks drawn by the City and made payable to it as escrow agent, the Escrow Agent shall promptly notify the Contractor, negotiate the same and deposit or invest and reinvest the proceeds in approved securities in accordance with the written instructions of the Contractor. In no event shall the Escrow Agent invest the escrowed funds in any security not approved, as set forth in Section V. below.

V.

The following securities, and none other, are approved securities for all purposes of this Agreement:

- (1) United States Treasury Bonds, United States Treasury Notes, United States Treasury Certificates of Indebtedness or United States Treasury Bills,
- (2) Bonds, notes and other evidences of indebtedness unconditionally guaranteed as to the payment of principal and interest by the United States,
- (3) Bonds or notes of the Commonwealth of Virginia,
- (4) Bonds of the City of Roanoke, Virginia, if such bonds carried, at the time of purchase by the Escrow Agent or deposit by the Contractor, a Standard and Poor's or Moody's Investor Service rating of at least "A", and
- (5) Certificates of deposit issued by commercial Banks located within the Commonwealth, including, but not limited to, those insured by the Escrow Agent and its affiliates.
- (6) Any bonds, notes, or other evidences of indebtedness listed in Sections (1) through (3) may be purchased pursuant to a repurchase agreement with a bank, within or without the Commonwealth of Virginia having a combined capital, surplus and undivided profit of not less than \$25,000,000, provided the obligation of the Bank to repurchase is within the time limitations established for investments as set forth herein. The repurchase agreement shall be considered

a purchase of such securities even if title, and/or possession of such securities is not transferred to the Escrow Agent, so long as the repurchase obligation of the Bank is collateralized by the securities themselves, and the securities have on the date of the repurchase agreement a fair market value equal to at least 100% of the amount of the repurchase obligation of the Bank, and the securities are held by a third party, and segregated from other securities owned by the Bank.

No security is approved hereunder which matures more than five years after the date of its purchase by the Escrow Agent or deposit by the Contractor.

VI.

The Contractor may from time to time withdraw the whole or any portion of the escrowed funds by depositing with the Escrow Agent approved securities as set forth in Section V. above in an amount equal to, or in excess of, the amount so withdrawn. Any securities so deposited or withdrawn shall be valued at such time of deposit or withdrawal at the lower of par or market value, the latter as determined by the Escrow Agent. Any securities so deposited shall thereupon become a part of the escrowed fund.

Upon receipt of a direction signed by the City Manager or Assistant City Manager, the Escrow Agent shall pay the principal of the fund, or any specified amount thereof, to the City or the Contractor as the City may direct. If payment is to be made to the City, it shall be made in cash. However, if payment has been authorized to be made to the Contractor, the Contractor may specify to the Escrow Agent if payment is to be made in cash or in kind. Such payment and delivery shall be made as soon as is practicable after receipt of the direction.

VII.

For its services hereunder the Escrow Agent shall be entitled to a reasonable fee in accordance with its published schedule of fees or as may be agreed upon by the Escrow Agent and the Contractor. Such fee and any other costs of administration of this Agreement shall be paid from the income earned upon the escrowed fund and, if such income is not sufficient to pay the same, by the Contractor.

VIII.

The net income earned and received upon the principal of the escrowed fund shall be paid over to the Contractor in quarterly or more frequent installments. Until so paid or applied to pay the Escrow Agent's fee or any other costs of administration such income shall be deemed a part of the principal of the fund.

IX.

The Surety undertakes no obligation hereby but joins in this Agreement for the sole purpose of acknowledging that its obligations as surety for the Contractor's performance of the contract are not affected hereby.

WITNESS the following signatures, all as of the day and year first above written.

Attest: (if corporation)
Witness: (if individual)

Typed Name of Contractor

President/Vice-President;
Partner or Owner (Seal)

Attest:

Typed Name of Escrow Agent

Bank Officer

Vice President

Witness:

Typed Name of Surety Company

By: _____
Attorney-In-Fact

Attest:

City of Roanoke, Virginia

City Clerk/Deputy City Clerk

City Manager

Approved as to form:

Approved as to execution:

City Attorney/Assistant City Attorney

City Attorney/Assistant City Attorney

CITY OF ROANOKE, VIRGINIA

SAMPLE CONTRACT

THIS CONTRACT, is dated this _____ day of _____, 20____,
between _____,
_____, hereinafter referred to as the "Contractor",
and the City of Roanoke, Virginia, a municipal corporation, chartered under the laws of
the Commonwealth of Virginia, hereinafter referred to as the "City" or "Owner";

WITNESSETH:

THAT, WHEREAS, the Contractor has been awarded a contract by the City for
furnishing all equipment, materials, goods, labor, and services necessary for providing
**installation of concrete ADA handicap curb ramps at various locations within the
City of Roanoke and associated Work**, all in a proper and timely manner and in
accordance with the Contract Documents, hereinafter and in the Contract Documents
referred to as the "Work";

WHEREAS, the Contractor has entered into a performance and a payment bond,
with surety, each in the penalty of One Hundred Percent (100%) of the Contract sum,
payable to the City of Roanoke as required by the Contract Documents;

NOW, THEREFORE, THIS AGREEMENT WITNESSETH:

ARTICLE 1. That, for and in consideration of the sums of money hereinafter
specified to be paid by the City to the Contractor for the Work provided in the Contract
Documents to be performed by the Contractor, the Contractor hereby covenants and
agrees with the City to fully construct, perform, and complete the Work in a good and
workmanlike manner in accordance with the Contract Documents to produce a fully
functional and properly operating project within the time stipulated, time being made of
the essence of this Contract; it being agreed by the parties hereto that the Contract
Documents consist of this Contract and those items set forth in the definition of Contract
Documents in Section 1 of the General Conditions and includes the following, all of
which are and constitute a part of this Contract as if attached hereto or set out in full
herein, viz:

Invitation to Bid contained in the Project Manual dated December 28, 2016

Instructions to Bidders dated December 28, 2016

General Conditions dated December 28, 2016

Supplemental General Conditions, if any, as contained in the Project Manual dated
December 28, 2016

Insurance Requirements (Exhibit 1)

Plans and Drawings as contained or listed in the Project Manual dated December 28, 2016

Specifications as contained in the Project Manual dated December 28, 2016

Special Conditions or similar documents, if any, as may be contained in the Project Manual dated December 28, 2016

Bid Form completed by Contractor for this project

Contractor's Performance Security

Contractor's Labor and Material Payment Security

Escrow Agreement, if any

ARTICLE 2. CONTRACT SUM: The City covenants and agrees to pay the Contractor for the Contractor's complete and satisfactory performance of the Work, in the manner and at the times set out in the Contract Documents, in current funds, the Contract Sum of _____ Dollars (\$_____), as provided for in the Contract Documents and as the Contract Sum may be increased or decreased by additions and/or reductions in the Work or as the Contract Sum may be decreased by the City's assessment of liquidated damages against Contractor, or by setoff or as provided for in the Contract Documents or as allowed by law.

ARTICLE 3. TIME OF COMMENCEMENT AND COMPLETION: The Contractor shall commence the Work to be performed under this Contract on such date as is established and fixed for such commencement by written notice to proceed given by the Transportation Division Manager to the Contractor, and the Contractor covenants and agrees to fully construct, perform, and complete the Work within three hundred sixty-five (365) consecutive calendar days after the date of commencement fixed and established by such notice. The Contractor further agrees that the Work shall be started promptly upon receipt of such notice and shall be prosecuted regularly, diligently, and uninterruptedly at a rate of progress that will ensure full completion thereof in the shortest length of time consistent with the Contract Documents.

ARTICLE 4. LIQUIDATED DAMAGES: City and Contractor recognize that time is of the essence in the completion of the Work and that City will suffer loss or damages if the Work is not completed within the period of time stipulated above, plus any extensions thereof allowed in accordance with the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving the actual loss or damages suffered by City if the Work is not completed on time. Accordingly, if such Work is not fully and satisfactorily completed within the period of time set forth in Article 3, the Contractor agrees it shall owe to and pay to City as liquidated damages for loss of City's full use or occupancy of the Work, but not as a penalty, the sum of two hundred and 00/100 Dollars (\$200.00) as step one liquidated damages and the sum of one hundred fifty and 00/100 Dollars (\$150.00) as step two liquidated damages for each consecutive calendar day during which full and satisfactory completion of the Work is delayed or exceeds the number of days provided for in this Contract to complete the

Work. Steps one and two being defined in Section 21 of the General Conditions. Contractor further agrees that any liquidated damages City assesses against Contractor may also be withheld by City from any retainage or other sums City may otherwise owe to Contractor. Contractor hereby waives any defense as to the validity of any liquidated damages stated herein on the grounds such liquidated damages could be void as penalties or are not reasonably related to actual damages. All such liquidated damages are in addition to any other damages the City may be entitled to recover from Contractor.

ARTICLE 5. PAYMENT FOR WORK: Construction estimates for payment, including the final payment request, submitted by the Contractor shall be in accordance with the provisions of Sections 20, 21, and 22 of the General Conditions and such other provisions of the Contract Documents that may be applicable. Final payment will not be made until the Work has been fully and satisfactorily completed, the Contract duly performed, and Certificate of Final Acceptance has been issued by the Transportation Division Manager, all as provided for in the Contract Documents.

ARTICLE 6. NONWAIVER: Contractor agrees that the City's waiver or failure to enforce or require performance of any term or condition of this Contract or the City's waiver of any particular breach of this Contract by the Contractor extends to that instance only. Such waiver or failure is not and shall not be a waiver of any of the terms or conditions of this Contract or a waiver of any other breaches of the Contract by the Contractor and does not bar the City from requiring the Contractor to comply with all the terms and conditions of the Contract and does not bar the City from asserting any and all rights and/or remedies it has or might have against the Contractor under this Contract or by law.

ARTICLE 7. FORUM SELECTION AND CHOICE OF LAW: By virtue of entering into this Contract, the Contractor submits itself to a court of competent jurisdiction in the City of Roanoke, Virginia, and further agrees that this Contract is controlled by the laws of the Commonwealth of Virginia and that all claims, disputes, and other matters shall only be decided by such court according to the laws of the Commonwealth of Virginia.

ARTICLE 8. SEVERABILITY: If any provision of this Contract, or the application of any provision hereof to a particular entity or circumstance, shall be held to be invalid or unenforceable by a court of competent jurisdiction, the remaining provisions of the Contract shall not be affected and all other terms and conditions of the Contract shall be valid and enforceable to the fullest extent permitted by law.

ARTICLE 9. NONDISCRIMINATION:

- A. During the performance of this Contract, the Contractor agrees as follows:
 - 1. The Contractor will not discriminate against any Subcontractor, employee, or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by State law relating to discrimination in employment, except where there is a bona fide occupational qualification

reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

2. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal employment opportunity employer.
3. Notices, advertisements, and solicitations placed in accordance with federal law, rule, or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

- B. The Contractor will include the provisions of the foregoing Subsections A (1), (2), and (3) in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

ARTICLE 10. Pursuant to the Code of Virginia, Section 2.2 - 4343.1, be advised that the City of Roanoke does not discriminate against faith-based organizations.

ARTICLE 11. COMPLIANCE WITH FEDERAL IMMIGRATION LAW: Contractor agrees that Contractor does not, and shall not during the performance of this Contract, knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.

ARTICLE 12. COMPLIANCE WITH STATE LAW, FOREIGN AND DOMESTIC BUSINESSES AUTHORIZED TO TRANSACT BUSINESS IN THE COMMONWEALTH OF VIRGINIA: Contractor shall comply with the provisions of Virginia Code Section 2.2-4311.2, as amended, which provides that a contractor organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 or as otherwise required by law. Contractor shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth, if so required under Title 13.1 or Title 50, to be revoked or cancelled at any time during the term of the Contract. The City may void the Contract if the Contractor fails to remain in compliance with the provisions of this section.

ARTICLE 13. CONTRACT SUBJECT TO FUNDING: This Contract is subject to funding and/or appropriations from federal, state, and/or local governments and/or agencies. If any such funding is not provided, withdrawn, or otherwise not made available for this Contract, the Contractor agrees that the City may terminate this Contract on seven (7) days written notice to Contractor, without any penalty or damages being incurred by the City. Contractor further agrees to comply with any applicable requirements of any grants and/or agreements providing such funding.

ARTICLE 14. NOTICES: All notices must be given in writing and shall be validly given if sent by certified mail, return receipt requested, or by a nationally recognized overnight courier, with a receipt, addressed as follows (or any other address that the party to be notified may have designated to the sender by like notice):

To City:	City of Roanoke _____ _____ _____
Facsimile:	Roanoke, Virginia 24014 (540) 853-XXXX
Copy to:	City of Roanoke Purchasing Division Attn: Purchasing Manager Noel C. Taylor Municipal Building, Room 202 215 Church Avenue, SW Roanoke, Virginia 24011
If to Contractor:	_____ Attn:_____,President/CEO _____ _____
Facsimile:	_____ _____

Notices shall be deemed to be effective one day after sending if sent by overnight courier or three (3) days after sending it by certified mail, return receipt requested.

ARTICLE 15. ENTIRE CONTRACT: This Contract is an entire and integrated contract and is not severable, except as set forth in Article 8, and may be modified only by written agreement properly executed by the parties.

SIGNATURE PAGE WILL FOLLOW

IN WITNESS WHEREOF, the parties hereto have signed this Contract by their authorized representatives.

Attest/Witness:

Typed Name of Contractor

Owner

By _____
President/Vice-President; Partner or

Typed or Printed Name and Title

Typed or Printed Name and Title

(Contractor's Corporate Seal)

Attest/Witness:

CITY OF ROANOKE, VIRGINIA

By _____

Typed or Printed Name and Title

Typed or Printed Name and Title

Appropriation and Funds Required
for this Contract Certified

Director/Deputy Director of Finance

Date: _____

Account #: _____

CT#: _____

Approved as to form:

Approved as to execution:

City Attorney/Assistant City Attorney

City Attorney/Assistant City Attorney

CITY OF ROANOKE, VIRGINIA

CONTRACTOR'S PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

that _____

(Insert full name or legal title and address of Contractor)

as Principal, (hereinafter referred to as "Contractor"),

and _____

(Insert full name or legal title and address of Surety)

Telephone: _____ Fax: _____

as Surety (hereinafter referred to as "Surety"), are held and firmly bound unto the City of Roanoke, Virginia, a municipal corporation, 215 Church Avenue, S.W., Noel C. Taylor Municipal Building, Room 350, Roanoke, Virginia 24011, as Obligee (hereinafter referred to as "City" or "Owner"), in the amount of _

Dollars (\$_____), for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents to the terms of this bond.

WHEREAS, Contractor has entered into a Contract with the City dated _____, 20____, incorporating certain specifications and drawings prepared by:

(Insert full name or legal title and address)

(which Contract, specifications, drawings, and other Contract Documents are hereinafter referred to collectively as the "Contract") for a fully functional and properly operating project, namely _____

all in a proper and timely manner and in accordance with the Contract Documents, which Contract is expressly incorporated herein by reference and made a part of this bond.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Contractor shall promptly and faithfully perform the Contract, in strict conformity with each and every requirement of the Contract, then this obligation shall be null and void; otherwise, this Performance Bond shall remain in full force and effect and is subject to the following conditions:

- a. Any alteration which may be made in the terms of the Contract, including, without limitation, the amount to be paid or the work to be done under it, or the giving by the City of any extension of time for the performance of the Contract or any other forbearance of any nature whatsoever on the part of either the City or the Contractor to the other shall not in any way release the Contractor and the Surety, or either of them, their heirs, exe-

cutors, administrators, successors, or assigns from their liability hereunder, and notice of such alteration, extension, or forbearance is hereby expressly waived by Surety.

- b. IT IS NOT INTENDED BY ANY OF THE PROVISIONS OF ANY PART OF THIS BOND TO CONFER A BENEFIT UPON ANY OTHER PERSON OR ENTITY NOT A PARTY TO THIS PERFORMANCE BOND OR TO AUTHORIZE ANY PERSON OR ENTITY NOT A PARTY TO THIS BOND TO MAINTAIN A SUIT PURSUANT TO THE TERMS OR PROVISIONS OF THIS BOND OTHER THAN THE CITY OR ITS SUCCESSORS OR ASSIGNS.
- c. The Surety hereby submits itself to a court of competent jurisdiction in Roanoke, Virginia, and agrees that any suit or action hereunder shall be brought only in a Virginia court of competent jurisdiction in the City of Roanoke or in the United States District Court for the Western District of Virginia, Roanoke Division, and not elsewhere.
- d. Any suit under this bond must be instituted within two (2) years after (i) completion of the Contract, including the expiration of all warranties and guarantees, or (ii) discovery of the defect or breach of warranty, if the action be for such, in all other cases.
- e. The provisions of this bond shall be governed by and interpreted to be consistent with the laws of the Commonwealth of Virginia.

SIGNED AND SEALED this ____ day of _____, 20____, in the presence of:

WITNESS:

CONTRACTOR

By:_____ (Seal)

(Type Name and Title)

WITNESS:

SURETY

By:_____ (Seal)

Attorney-in-Fact

(Type Name and Title)

(Attorneys-in-fact affix seal and attach original or certified copy of current power of attorney.)

CITY OF ROANOKE, VIRGINIA

CONTRACTOR'S LABOR AND MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

that _____

(Insert full name or legal title and address of Contractor)

as Principal, (hereinafter referred to as "Contractor"),

and _____

(Insert full name or legal title and address of Surety)

Telephone: _____ Fax: _____

as Surety (hereinafter referred to as "Surety"), are held and firmly bound unto the City of Roanoke, Virginia, a municipal corporation, 215 Church Avenue, S.W., Noel C. Taylor Municipal Building, Room 350, Roanoke, Virginia 24011, as Obligee (hereinafter referred to as "City" or "Owner"), for the use and benefit of Claimants as herein below defined, in the amount of _____

Dollars (\$ _____), for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents to the terms of this bond.

WHEREAS, Contractor has entered into a Contract with the City dated _____, 20____, incorporating certain specifications and drawings prepared by:

(Insert full name or legal title and address)

(which Contract, specifications, drawings, and other Contract Documents are hereinafter referred to collectively as the "Contract") for providing a fully functional and properly operating project, namely _____

all in a proper and timely manner and in accordance with the Contract Documents, which Contract is expressly incorporated herein by reference and made a part of this bond.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Contractor shall promptly make payment to all Claimants, as hereinafter defined, for all material furnished or labor supplied or performed in the prosecution of the work provided for in the Contract, then this obligation shall be void; otherwise this Labor and Material Payment Bond shall remain in full force and effect and is subject to the following conditions:

a. Any alteration which may be made in the terms of the Contract, including, without limitation, the amount to be paid or the work to be done under it, or the giving by the City of any extension of time for the performance of the Contract or any other forbearance of any nature whatsoever on the part of either the City or the Contractor to the other shall not in any way release the Contractor and the Surety, or either of them, their heirs, executors, administrators, successors, or assigns from their liability hereunder, and notice of such alteration, extension, or forbearance is hereby expressly waived by Surety.

b. A Claimant is defined as one who has and fulfills a contract to supply labor or materials, or both, to the Contractor or to any of the Contractor's subcontractors, in the prosecution of work provided for in the Contract, labor and material being construed to include, without limitation, public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the site, or who may otherwise be allowed by law to file a claim against the Contractor and/or Surety.

c. The Contractor and Surety hereby jointly and severally agree with City that every Claimant, as defined in paragraph b, **who has a direct contractual relationship with the Contractor and** who has performed labor or furnished material in accordance with the Contract in the prosecution of the work provided for in the Contract and who has not been paid in full therefore before the expiration of ninety (90) days after the day on which such Claimant performed the last such labor or furnished the last of such materials for which Claimant claims payment, or as may otherwise be allowed by law, may bring an action on this payment bond to recover any amount due Claimant for such labor or material, and may prosecute such action to final judgment and have execution on the judgment. The Contractor and Surety expressly agree that City shall not be liable for the payment of any judgment, costs, or expenses resulting from any such suit and that neither Contractor nor Surety shall cause City to be named as a party in any such suit.

d. The Contractor and Surety hereby jointly and severally agree with City that every Claimant, as defined in paragraph b, who has direct contractual relationship with any subcontractor, but who has no contractual relationship, express or implied, with such Contractor, may bring an action on this bond only if the Claimant has given written notice to the Contractor within **ninety (90)** days from the day on which the Claimant performed the last of the labor or furnished the last of the materials for which payment is claimed, stating with substantial accuracy the amount claimed and the name of the person for whom the work was performed or to whom the material was furnished, or as may otherwise be allowed by law. **Notice to the Contractor shall be given as set forth in Virginia Code §2.2-4341 and Claimants are advised to review such Code Section.** The Contractor and Surety expressly agree that City shall not be liable for the payment of any judgment, costs, or expenses resulting from any such suit and that neither Contractor nor Surety shall cause City to be named as a party in any such suit.

e. The Surety hereby submits itself to a court of competent jurisdiction in Roanoke, Virginia, and agrees that any suit or action hereunder by any Claimant shall be brought only in a Virginia court of competent jurisdiction in and for the City of Roanoke, or in the United States District Court for the Western District of Virginia, Roanoke Division, and not elsewhere.

f. Any suit or action hereunder shall be brought within one year after the day on which the person bringing such action last performed labor or last furnished or supplied materials.

g. The provisions of this bond shall be governed by and interpreted to be consistent with the laws of the Commonwealth of Virginia, including, but not limited to Virginia Code §2.2-4341.

SIGNED AND SEALED this ____ day of _____, 20____, in the presence of:

WITNESS:

CONTRACTOR

By: _____ (Seal)

(Type Name and Title)

SURETY

WITNESS:

By: _____ (Seal)

Attorney-In-Fact

(Type Name and Title)

(Attorneys-in-fact affix seal and attach current original or certified copy of power of attorney.)

CITY OF ROANOKE, VIRGINIA

CERTIFICATE OF SUBSTANTIAL COMPLETION

The Date of Substantial Completion of the Work or designated portion thereof is the Date certified by the Project Manager when construction is sufficiently complete, in accordance with the Contract Documents, so the City of Roanoke, Virginia (City or Owner) can occupy or utilize the Work or designated portion thereof for the use for which it is intended, as expressed in the Contract Documents.

PROJECT MANAGER: _____
BID NUMBER: _____ DATE OF ISSUANCE: _____
PROJECT: _____
CONTRACTOR: _____
PROJECT OR DESIGNATED PORTION SHALL INCLUDE: _____

The Work or portion thereof designated above performed under this Contract has been reviewed and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby established as _____.
The City will assume possession thereof at _____ a.m./p.m. on that date.

A list of items ("punch list"), prepared by the Project Manager, to be completed or corrected by the Contractor, is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. The Contractor will complete any portion of the Work that is not substantially complete and will complete or correct the work on the punch list in accordance with the Contract Documents.

The establishment of a date of substantial completion and/or the acceptance of the Work or designated portion thereof does not relieve the Contractor of any responsibility for any faulty materials or workmanship or operate to relieve the Contractor or its Surety from any obligation under the Contract with the City or the Performance Bond or Labor and Material Payment Bond.

This Certificate is subject to the terms and conditions of the Contract Documents, including but not limited to Section 20.8 of the General Conditions.

_____ Project Manager	_____ By	_____ Date
_____ Contractor	_____ By	_____ Date
_____ Transportation Division Manager	_____ By	_____ Date

CITY OF ROANOKE, VIRGINIA

AFFIDAVIT OF PAYMENT OF CLAIMS

By: _____

(Insert Exact Name and Address of Firm)

This day _____ personally appeared before me,
_____, a Notary Public in and for the City (County) of
_____, and, being by me first duly sworn states that all
subcontractors and suppliers of labor and materials have been paid all sums due them
for work performed or materials furnished in the performance of the Contract between
the City of Roanoke, Virginia, and _____
_____, Contractor, dated _____, 20____, for

_____ or arrangements have been made by the Contractor satisfactory to such subcontractors
and suppliers with respect to the payment of such sums as may be due from the
Contractor to the subcontractors and suppliers.

CONTRACTOR: _____

BY: _____

PRINTED OR TYPED NAME AND TITLE: _____

Commonwealth of Virginia at Large:

Subscribed and sworn to before me this ____ day of _____, 20____.

My commission expires on the ____ day of _____, _____.

Notary Public

Printed Name of Notary Public

CITY OF ROANOKE, VIRGINIA

CERTIFICATE OF FINAL ACCEPTANCE

This Certificate is subject to the terms and conditions of the Contract Documents, including but not limited to Section 20.8 of the General Conditions. The City, Contractor, and Project Manager, if applicable, hereby agree that the date fixed for Final Acceptance of the Work by the City is _____.

The establishment of a date of Final Acceptance and/or the acceptance of the Work does not relieve the Contractor of any responsibility for any faulty materials or workmanship or operate to relieve the Contractor or its Surety from any obligation under the Contract with the City or the Performance Bond or Labor and Material Payment Bond.

PROJECT MANAGER: _____

PROJECT NUMBER: _____

PROJECT: _____

CONTRACTOR: _____

_____	_____	_____
Project Manager	By	Date

_____	_____	_____
Contractor	By	Date

_____	_____	_____
Transportation Division Manager	By	Date

CITY OF ROANOKE, VIRGINIA
GENERAL CONDITIONS

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CITY OF ROANOKE, VIRGINIA

GENERAL CONDITIONS

SECTION 1. DEFINITIONS

Whenever used in these General Conditions or in the Contract Documents, the following terms have the meanings indicated, which are applicable to both the singular and plural and the male and female gender thereof, and where applicable to any other legal entity such as a corporation, partnership, limited liability company, etc.

The section and paragraph headings are inserted for convenience only.

Architect, Engineer, Architect/Engineer or A/E: The term used to designate the Architect and/or the Engineer who contracts with the City to provide the Architectural and Engineering services for the project. The Architect/Engineer is a separate Contractor and is referred to herein as the Architect/Engineer or abbreviated as A/E. The term includes any associates or consultants employed by the firm to assist in providing the A/E services.

Bidder: The person, firm, corporation, or other entity interested in submitting a bid for the Work to be performed.

Change Order: A document issued by Transportation Division Manager on or after the effective date of the Contract which is agreed to by the Contractor and approved by the City, and which authorizes an addition, deletion, or revision in the Work, including any adjustment in the Contract Price and/or the Contract Time.

City or Owner: The City of Roanoke, Virginia, or its authorized representative.

City Code: Refers to the Code of the City of Roanoke (1979), as amended.

Transportation Division Manager: Transportation Division Manager or his authorized representative.

City Manager: The City Manager or his authorized representative.

Code of Virginia: Refers to the Code of Virginia (1950), as amended. (Sometimes referred to as Va. Code or Virginia Code.)

Contract Documents: These documents include, but are not limited to, the Project Manual, Invitation to Bid, the Instructions to Bidders, the Bid Form, the Contract, the Bonds or other Bid Security, the Escrow Agreement, the General Conditions, Supplementary General Conditions, Special Conditions, the Specifications, Addenda or Change Orders, the Plans and Drawings, any Supplemental Drawings, and any additional documents incorporated by reference in the above.

Contract: The written agreement between the parties concerning the performance of the Work and consisting of the Contract Documents.

Contractor: The person, firm, corporation, or other entity entering into a contractual agreement with the City to perform the Work.

Defect, Defective, or Deficient: An adjective or noun which when modifying or referring to the word Work refers to Work or any part thereof that is unsatisfactory, faulty, or does not conform to the Contract Documents, or does not meet the requirements of any inspections, standards, tests, or approvals referred to in the Contract Documents.

Document(s): This term includes, but is not limited to: writings, drawings, items on which words, symbols, or marks are recorded; electronic data of any type; videotapes, recordings, photographs and negatives, digital or otherwise; and any other form of data, writing, or information compilation, however recorded or stored, and regardless of physical form or characteristics.

Field Order: A written order issued by Transportation Division Manager which clarifies the requirements of the Contract by giving a more complete expression of the drawings or specifications or other documents without any change in the design, the Contract price, or the Contract time.

Final Acceptance: The City's acceptance of the project from the Contractor upon confirmation from Transportation Division Manager and the Contractor that the project is apparently complete in accordance with the Contract requirements.

Notice: All written notices, demands, instructions, claims, approvals, and disapprovals required to obtain compliance with the Contract requirements. Any written notice by either party to the Contract shall be sufficiently given if delivered to or at the last known business address of the person, firm, or corporation constituting the party to the Contract, or to his, her, their, or its authorized agent, representative, or officer.

Notice to Proceed: A written notice given by the City at the City's discretion to the Contractor fixing the date on which the Contract time will commence for the Contractor to begin the prosecution of the Work in accordance with the requirements of the Contract Documents.

Project Inspector: One or more individuals employed by the City to inspect the Work and/or to act as Resident Inspector to the extent required by the City. The City shall notify the Contractor of the appointment of such Project Inspector(s).

Provide: Shall mean to furnish and install ready for its intended use.

Subcontractor: A person, firm, partnership, corporation, or other entity having a direct contract with the Contractor or with any other Subcontractor for the performance of the Work. It includes one who provides on-site labor, but does not include one who only furnishes or supplies material for the project.

Submittals: All drawings, diagrams, illustrations, brochures, schedules, samples, electronic data and other data required by the Contract Documents which are specifically prepared by or for the Contractor, Subcontractor, or Supplier, and submitted by the Contractor to illustrate the material, equipment, or layouts, or some other portion of the Work.

Substantial Completion: The date certified by Transportation Division Manager when construction is sufficiently complete, in accordance with the Contract Documents, so the City can occupy or utilize the Work or designated portion thereof for the purposes for which it is intended.

Successful Bidder: The bidder to whom the City makes an award.

Supplier: A manufacturer, fabricator, distributor, material man, or vendor who provides only material or supplies for the project, but does not provide on-site labor.

Work or Project: The entire completed construction or the various separately identifiable parts thereof as required by the Contract Documents. Work is the result of performing services, furnishing labor, and furnishing and incorporating material and equipment into the construction.

SECTION 2. INDEMNITY PROVISION

2.1 Indemnity: Contractor shall indemnify and hold harmless City and its officers, agents, and employees against any and all liability, losses, damages, claims, causes of action, suits of any nature, costs, and expenses, including reasonable attorney's fees, resulting from or arising out of Contractor's or its employees, agents, or subcontractors actions, activities, or omissions, negligent or otherwise, on or near City's property or easement or arising in any way out of or resulting from any of the work to be provided under this Contract, and this includes, without limitation, any fines or penalties, violations of federal, state, or local laws or regulations, personal injury, wrongful death, or property damage claims or suits, breach of contract claims, indemnity claims, and any other damages, losses, and/or claims of any type.

2.2 Hazardous Material: While on City's property or easement and in its performance of this Contract, Contractor shall not transport, dispose of or release any hazardous substance, material, or waste, except as necessary in performance of its Work under this Contract and in any event Contractor shall comply with all federal, state, and local laws, rules, regulations, and ordinances controlling air, water, noise, solid wastes, and other pollution, and relating to the storage, transport, release, or disposal of hazardous material, substances or waste. Regardless of City's acquiescence, Contractor shall indemnify and hold City, its officers, agents, and employees harmless from all costs, claims, damages, causes of action, liabilities, fines or penalties, including reasonable attorney's fees, resulting from Contractor's violation of this paragraph and agrees to reimburse City for all costs and expenses incurred by City in eliminating or remedying such violations. Contractor also agrees to reimburse City and hold City, its officers, agents, and employees harmless from any and all costs, expenses, attorney's fees and all penalties or civil judgments obtained against the City as a result of Contractor's use or release of any hazardous substance or waste onto the ground, or into the water or air from or upon City's premises. (See also Section 13.2 of these General Conditions.)

2.3 Patents: The Contractor shall protect, indemnify, and hold harmless the City from any and all demands for fees, claims, suits, actions, causes of action, or judgments based on the alleged infringement or violation of any patent, invention, article,

trademark, arrangement, or other apparatus that may be used in the performance of the Contract or the Work.

SECTION 3. LAWS, REGULATIONS, PERMITS, AND IMMIGRATION LAW

- 3.1 Regulations:** The Contractor shall fully comply with all local, state, and federal ordinances, laws, and regulations, including without limitation all applicable building and fire code sections of the Occupational Safety and Health Act (OSHA), and the Virginia Uniform Statewide Building Code, and obtain all required licenses and permits, including business license, building permits, and pay all charges and expenses connected therewith. Contractor further agrees that Contractor does not, and shall not during the performance of this Contract; knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.
- 3.2 Permits:** The Contractor shall, at its sole cost, obtain all required permits from the appropriate authorities, including the City of Roanoke. This includes, but is not limited to, all permits for any excavations in any public right-of-way. No delay or extension of time or any claim for additional compensation of any type shall be granted for failure to obtain any required permits.
- 3.3 Litter:** In accordance with the Virginia Anti-Litter Law, receptacles sufficient to contain workmen's litter and construction wastes capable of being spread by wind or water shall be located on the construction site. The number and size of receptacles required shall be determined by the Contractor.
- 3.4 Asbestos License:** The Contractor, if not licensed as an asbestos abatement contractor or a Roofing, Flooring, and Siding (RFS) contractor in accordance with Section 54.1-514, of the Code of Virginia, shall have all asbestos related work performed by subcontractors who are duly licensed as asbestos contractors or RFS contractors as appropriate for the work required.

SECTION 4. CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE

Neither the Contractor nor any subcontractor shall commence work under this Contract until the Contractor has obtained and provided proof of the required insurance under this Section to the City. The Contractor confirms that all subcontractors have provided the Contractor with proof of insurance. Contractor further warrants that proof of coverage as provided to the City responds on a primary basis in the event of an uninsured or underinsured subcontractor. All such insurance shall be primary and non-contributory to any insurance or self-insurance the City may have in force.

4.1 For All Contracts, the following minimum insurance requirements apply:

a. Workers' Compensation and Employers' Liability:

The Contractor shall obtain and maintain the following limits:

Workers' Compensation: Statutory

Employers' Liability: \$100,000 bodily injury by accident each occurrence

\$500,000 bodily injury by disease (policy limit)

\$100,000 bodily injury by disease each employee

b. Commercial General Liability:

Coverage is to be written on an "occurrence" basis and such coverage shall include broad form extension endorsements for both liability and property damage.

Completed Operations coverage will be required to be maintained for the life of the Contract.

For Limits of Liability see Sections 4.2 and 4.3 of these General Conditions.

c. Automobile Liability:

Limits for vehicles owned, non-owned, hired or borrowed shall not be less than:

- \$1,000,000 Bodily Injury and Property Damage combined single limit per occurrence.

d. Additional Insurance Requirements:

Additional specific insurance coverage minimum requirements to be provided by Contractor may include the following as detailed in the Supplemental General Conditions:

- 1) Builders Risk: At the discretion of the City, the Contractor, at its cost, shall obtain and maintain in the names of the City and the Contractor "all-risk" builders risk insurance (if approved by the City) upon the entire structure or structures on which the Work of this Contract is to be done and upon all material in or adjacent thereto or those that are "off-site" but which are intended for use thereon, to one hundred percent (100%) of the completed value thereof.
- 2) Property Coverage: Installation Floater (and Rigger's Form, if applicable) will be required for the installation of contents or equipment; coverage will begin with supplier and continue until equipment/contents have been fully installed. Floater will be valued for the replacement cost value of equipment/contents including all costs. The Contractor shall provide coverage for portions of the work stored off-site after written approval of the City at the value established in the approval and for portions of the work in transit.
- 3) Special Hazards: In the event special hazards are evident in the work contemplated, or if required by the Contract Documents, the Contractor shall obtain and maintain during the life of the Contract a rider to the policy or policies required, in an amount not less than that stipulated under the above Paragraphs. Should any unexpected special hazards be

encountered during the performance of this Contract, the Contractor shall, prior to performing any work involving the special hazard, immediately obtain this insurance as instructed by the City. In the event the special hazard requiring the additional coverage was not a part of the original bid, the expense of such insurance shall be reimbursed to the Contractor by the City, otherwise the Contractor shall assume full responsibility for the purchase with no charge back to the City.

- 4) Deductible: Deductible/self-insured retention amounts shall be reduced or eliminated upon written request from City. The insurer's cost of defense (and appeal), including attorney's fees, shall not be included within the coverages provided but shall remain the insurer's responsibility.
- 5) Term: Insurance shall remain in effect until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective work.
- 6) Limit of Liability: Nothing contained in these insurance requirements is to be construed as limiting the liability of Contractor or Contractor's insurance carriers. City does not in any way represent that the coverage's or the limits of insurance specified is sufficient or adequate to protect Contractor's interests or liabilities, but are merely minimums. The obligation of the Contractor to purchase insurance herein shall not in any way limit the obligation of the Contractor in any event and/or in the event that the City should suffer an injury or loss in excess of the amount recoverable through insurance.

4.2 Contracts of \$100,000 or More: The following minimum insurance requirements apply in addition to the above requirements:

a. Limits of Liability: For the Commercial General Liability policy:

- \$2,000,000 general aggregate
- \$1,000,000 products/completed operations aggregate
- \$1,000,000 personal and advertising injury
- \$1,000,000 each occurrence

Coverage is to be written on an "occurrence" and "per project" basis and such coverage shall include:

b. Umbrella Liability Insurance:

This coverage shall be written for minimum limit of:

- \$5,000,000 each occurrence for Personal and Bodily Injury and Property Damage

This Policy shall apply in excess and follow form of employer's liability, commercial general liability, and auto liability.

4.3 Contracts Less Than \$100,000: The following minimum insurance limits apply unless specified otherwise in the Supplemental General Conditions:

a. Limits of Liability: For the Commercial General Liability policy:

- \$1,000,000 general aggregate
- \$1,000,000 products/completed operations aggregate
- \$1,000,000 personal and advertising injury
- \$1,000,000 each occurrence

4.4 Proof of Insurance Coverage: The policies of insurance required by Sections 4.1, 4.2, or 4.3 shall be purchased from a reputable insurer licensed to do business in Virginia and maintained for the life of the Contract by the Contractor. Other insurance requirements include the following:

- a. The Contractor shall furnish the City with the required certificates of insurance showing the insurer, type of insurance, policy number, policy term, deductible, and the amount insured for property coverage's and the limits for liability coverage's.
- b. The Contractor shall notify Transportation Division Manager and Risk Manager in writing within thirty (30) consecutive calendar days if any of the insurance coverage's or policies are cancelled or materially altered and Contractor shall immediately replace such policies and provide documentation of such to Transportation Division Manager and Risk Manager.
- c. The required insurance policies and coverages, excluding those for Workers Compensation and Professional Liability, shall name the City of Roanoke, its officers, agents, volunteers and employees as additional insured's and the certificate of insurance shall show if the policies provide such coverage. Waiver of subrogation is required with respect to any policy of workers' compensation and employers' liability insurance required under this Section. The certificate of insurance shall show if the policies provide such waiver. Additional insured and waiver endorsements shall be received by the City's Risk Manager from the insurer with the certificate of insurance unless the City's Risk Manager agrees to another process. The City's Risk Manager may approve other documentation of such insurance coverages.
- d. Insurance coverage shall be in a form and with an insurance company approved by the City which approval shall not be unreasonably withheld. Any insurance company providing coverage under this Contract shall be authorized to do business in the Commonwealth of Virginia.

SECTION 5. EMPLOYMENT AND CONDUCT OF PERSONNEL

5.1 City Residents: Pursuant to the provisions of Resolution Number 10610 of the Roanoke City Council it is required that in the employment of labor, on work performed for the City, that the Contractor shall give preference to residents of the City and give

secondary preference to residents of the area within a radius of fifty (50) miles of the City, when such labor is available.

5.2 Employee Qualifications: Only skilled and reliable workers shall be employed for the Work. Should any person employed on the Work by the Contractor appear to Transportation Division Manager to be incompetent, unable to perform the Work, or disorderly, such person shall be removed from the Work immediately upon proper notice to the Contractor from Transportation Division Manager and such person shall not again be used for this Contract.

5.3 Superintendence: The Contractor shall have a competent foreman or superintendent, satisfactory to Transportation Division Manager, on the jobsite at all times during the progress of the Work. The Contractor shall notify the City, in writing, of any proposed change in the foreman or superintendent including the reason therefore prior to making such change.

5.4 Drug-free Workplace: During the performance of this Contract, the Contractor agrees to (i) provide a drug-free workplace for the Contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purpose of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a Contractor, the employees of who are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the Contract.

The Contractor shall post a copy of the policy in a conspicuous place at the jobsite and assure that all Contractor, subcontractor, and supplier personnel entering the jobsite are informed of the policy.

SECTION 6. EMPLOYMENT DISCRIMINATION BY CONTRACTOR PROHIBITED

Every Contract of over \$10,000 to which the City is a party shall contain the provisions in Sections 6.1 and 6.2 herein:

6.1 Nondiscrimination: During the performance of this Contract, the Contractor agrees as follows:

- a. The Contractor will not discriminate against any Subcontractor, employee, or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by State law relating to discrimination in employment, except where there is a bona fide

occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

- b. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal employment opportunity employer.
- c. Notices, advertisements, and solicitations placed in accordance with federal law, rule, or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

6.2 Nondiscrimination by Subcontractor or Vendor: The Contractor will include the provisions of the foregoing Subsections 6.1 (a), (b), and (c) in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

SECTION 7. SUBCONTRACTORS

7.1 Licensure: The Contractor shall comply with Title 54.1, Chapter 11, of the Code of Virginia, with respect to licensure of itself and all subcontractors employed to work on the project. The Contractor represents that it has verified that all subcontractors hold all required state and local licenses, including State Contractor's license and City business license. The Contractor shall verify that any additional subcontractors employed to work on the project, subsequent to the initial verification, hold all required state and local licenses, including State Contractor's license and City business license. The Contractor is required to submit the Contractor's Certification as to Licensure of Subcontractors Form to Transportation Division Manager. This constitutes a material part of the Contractor's Contract with the City.

7.2 Change of Subcontractors: Subcontractors shall not be changed without the written approval of Transportation Division Manager.

7.3 Responsibility for Subcontractors: The Contractor shall not employ for the project any subcontractor that the City may, within a reasonable time, object to as unsuitable. The Contractor further agrees that it is as fully responsible to the City for the acts and omissions of its subcontractors, suppliers, and invitees on the jobsite and of persons either directly or indirectly employed by them, as the Contractor is for the acts and omissions of persons directly employed by it.

SECTION 8. CONDITIONS AT SITE

8.1 Existing Conditions: The Contractor shall have visited the site prior to bidding and is responsible for having ascertained pertinent local conditions such as location, accessibility, and general character of the site, and the character and extent of existing improvements and work within or adjacent to the site. Claims as a result of failure to have done so will not be considered by the City and will be the sole responsibility of the Contractor.

- 8.2 Hidden Conditions:** If, in the performance of the Contract, hidden physical conditions of a building being modified are exposed revealing unusual or materially different conditions than those ordinarily encountered or inherent in work of this nature, or if subsurface or latent conditions at the site are found which are materially different from those frequently present in the locality, from those indicated in the Contract Documents, or from those inherent in work of the character required by the Contract, the Contractor must report such conditions to Transportation Division Manager before the conditions are disturbed. Upon such notice, or upon his own observation of such conditions, Transportation Division Manager will make such changes in the Contract Documents as he finds necessary to conform to the different conditions. Any change in the cost of the Work or the time needed for completion must be requested pursuant to Section 19 of these General Conditions.
- 8.3 Suspected Hazardous Material:** If the Contractor, during the course of the project, observes the existence of any material which it suspects or knows to be hazardous to human health or the environment, the Contractor shall promptly notify Transportation Division Manager. Transportation Division Manager will provide the Contractor with instructions regarding the situation. The Contractor shall not perform any work involving the material or any work causing the material to be less accessible prior to receipt of special instructions from Transportation Division Manager.

SECTION 9. SURVEYS AND LAYOUT

- 9.1 Surveying Services:** All necessary drawings showing the location of property lines, buildings, and other appropriate information shall be furnished to the Contractor through the drawings and specifications. The Contractor shall provide competent surveying and engineering services to verify the given information and to execute the Work in accordance with the Contract requirements and shall be responsible for the accuracy of Contractor's surveying and engineering services. The Contractor shall immediately notify Transportation Division Manager of any discrepancies and confirm such notice in writing within five (5) calendar days.
- 9.2 Survey Control:** Such general reference points and bench marks on the building site as will enable the Contractor to proceed with the Work will be established in the drawings and specifications. If the Contractor finds that any previously established reference points have been lost or destroyed, Contractor shall promptly notify Transportation Division Manager.
- 9.3 Damage to Survey Control:** The Contractor shall protect and preserve the established bench marks and monuments and shall make no changes in locations without written notice to and approval from Transportation Division Manager. Any of these which may be lost or destroyed or which require shifting because of necessary changes in grades or locations shall, subject to prior approval from Transportation Division Manager, be replaced and accurately located by the Contractor.

SECTION 10. DRAWINGS AND SPECIFICATIONS

- 10.1 Drawings and Specifications:** The general character and scope of the Work are illustrated by the drawings and specifications. Where on any of the drawings a portion of the Work is drawn out and the remainder is indicated in outline, the parts drawn out shall apply also to all other like portions of the Work. If the Contractor deems additional detail or information to be needed, Contractor may request the same in writing from Transportation Division Manager. The Contractor shall carry out the Work in accordance with the drawings and specifications and any additional detail drawings and instructions as issued by Transportation Division Manager. However, Contractor shall immediately notify Transportation Division Manager of any discrepancies in such drawings and/or specifications and confirm such notice in writing within five (5) calendar days.
- 10.2 Discrepancies in Drawings:** In case of difference between small and large scale drawings, the large scale drawings shall govern, unless otherwise directed in writing by Transportation Division Manager.
- 10.3 "Similar":** Where the word "similar" appears on the drawings, it shall be interpreted in its general sense and not as meaning identical, and all details shall be worked out in relation to their location and their connection with other parts of the Work.
- 10.4 Division of Specifications:** The specifications are divided into several parts for convenience only, since the entire specifications must be considered as a whole. The divisions of the specifications are not intended to control the Contractor in dividing the work among subcontractors or to limit the work performed by any trade. The Contractor shall be responsible for the coordination of the trades, subcontractors, and vendors engaged upon this Work.
- 10.5 Dimension Accuracy:** Measurements or dimensions shown on the drawings for site features, utilities, and structures shall be verified at the site by the Contractor. The location of underground utilities indicated on the plans is diagrammatic and were plotted from available records and field survey information and shall be considered approximate only, and the City makes no representations with regard to their accuracy. The Contractor shall not scale measurements or dimensions from the drawings. Where there are discrepancies, Transportation Division Manager shall be consulted. Where new work is to connect to, match with, or be provided for existing work, the Contractor shall verify the actual existing conditions and related dimensions prior to ordering or fabrication, so that such new work will properly fit with existing work.
- 10.6 As-Built Drawings:** The Contractor shall maintain at the site for the City one copy of all drawings, specifications, addenda, approved shop or setting drawings, change orders, field deviations, and other documents or modifications (referred to herein as "As-Built Drawings") in good order and marked to record all changes as they occur during construction. These shall be available to Transportation Division Manager, the Project Inspector, and the City's testing personnel. These "As-Built Drawings" shall be neatly and clearly marked in color during construction to record all variations from the drawings made during construction. The representation of such variations shall include such supplementary notes,

symbols, legends, documents, and details as may be necessary to clearly show the as-built construction.

- 10.7 Record Drawings:** Upon completion of the Work and prior to Final Acceptance, the Contractor shall deliver to Transportation Division Manager, for preparation of the Record Drawings, one complete set of "As-Built Drawings" and documents referred to in Section 10.6.

SECTION 11. SCHEDULE OF THE WORK

- 11.1 Scheduling:** The Contractor is responsible for the sequencing, scheduling, and coordinating of the Work, for monitoring the progress of the Work, and for taking appropriate action to keep the Work on schedule. The Contractor is responsible for coordinating Contractor's work on the Project with any other work being carried on by the City or by other City consultants or contractors at the site or for the Project. The Contractor shall prepare and submit to Transportation Division Manager a schedule for accomplishing the Work based upon the completion time stated in the Contract and submit such to Transportation Division Manager at the pre-construction conference. No progress payments will be made to the Contractor until after Contractor has submitted a schedule which is acceptable to Transportation Division Manager. All schedules under Section 11 shall be in both paper and electronic form unless otherwise directed by Transportation Division Manager.
- 11.2 Progress:** The Contractor shall review the progress of the Work not less than each month, but as often as necessary to properly manage the project and stay on schedule. The Contractor shall collect and preserve information on Change Orders, including extensions of time. The Contractor shall evaluate this information and update the schedule monthly to finish within the contractually allowed time. The Contractor shall submit the updated schedule with each progress payment request. The scheduled completion date shall be within the period of time allowed by the Contract for completion of construction, except as amended by any Change Orders.
- 11.3 Delay and Recovery Schedule:** Should there be any delay; Transportation Division Manager may require the Contractor to prepare, at no extra cost to the City, a plan of action and a recovery schedule for completing the Work by the contractual completion date. The plan of action and recovery schedule shall explain and display how the Contractor intends to regain compliance with the original schedule. The plan of action and recovery schedule, when required, shall be submitted and approved by Transportation Division Manager prior to Contractor's submission of the next monthly construction estimate. The City may withhold progress payments until such schedule is submitted and approved.

SECTION 12. CONSTRUCTION SUPERVISION

The Contractor shall be solely responsible to supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract. The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The Contractor is solely responsible to the City that the

finished Work complies with the Contract Documents. The Contractor shall be solely responsible for health and safety precautions and programs for workers and others in connection with the Work. No inspection by, knowledge on the part of, or acquiescence by the City, or any other entity whatever shall relieve the Contractor from its sole responsibility for compliance with the requirements of the Contract or responsibility for health and safety programs and precautions.

SECTION 13. STANDARDS FOR MATERIAL INSTALLATION AND WORKMANSHIP

- 13.1 Material and Equipment:** Unless otherwise specifically provided in this Contract, all equipment, material, and accessories incorporated in the Work are to be new and in first class condition. The Contractor shall furnish to Transportation Division Manager for approval the name of the manufacturer, the model number, and other identifying data and information respecting the performance, capacity, nature, and rating of the machinery and mechanical and other equipment which the Contractor contemplates incorporating in the Work. Machinery, equipment, material, and articles installed or used without required approval may be subject to subsequent rejection by the City.
- 13.2 Hazardous Substances:** Unless specifically approved by the City or required by the specifications, the Contractor shall not incorporate any material into the Work containing asbestos or any material known by the Contractor to contain a substance known to be hazardous to health when the building and/or site is occupied by the City. If the Contractor becomes aware that a material required by the specifications contains asbestos or other hazardous substances, it shall notify the City and Transportation Division Manager immediately and shall take no further steps to acquire or install any such material without first obtaining City approval. (See also Sections 2.2 and 8.3 of these General Conditions.)
- 13.3 Workmanship:** The workmanship shall be of the highest quality found in the building industry in every respect. All items of Work shall be done by workmen skilled in the particular task to which they are assigned. In the acceptance or rejection of work, no allowance will be made for lack of skill on the part of workmen. Poor or inferior workmanship (as determined by Transportation Division Manager, the City, or other inspecting authorities) shall be removed and replaced to conform to the highest quality standards of the trades concerned, or otherwise corrected to the satisfaction of Transportation Division Manager, the City, or other inspecting authority all at the Contractor's sole expense.
- 13.4 Instructions for Installation:** Under the various sections of the specifications, where specified items are supplied with the manufacturer's printed instructions, recommendations, or directions for installation, or where such instructions, recommendations, or directions are available, installation of the specified items shall be in strict accordance with the manufacturer's printed instructions unless those instructions contradict the drawings or specifications, in which case Transportation Division Manager will be notified by Contractor for an interpretation and decision.
- 13.5 Installation Procedures Without Instructions:** Where neither the manufacturer's printed instructions are available for installation of specific items, nor are specific code or standards given by reference to govern the installation of

specific items; and where there is doubt concerning the installation procedures to be followed or the quality of workmanship to be maintained in the installation of specific items, the Contractor shall consult Transportation Division Manager for approval of the installation procedures Contractor proposes to follow or the specific standards governing the quality of workmanship Contractor proposes to maintain during the installation of the items in question.

- 13.6 Codes and Standards:** Under the various sections of the specifications, where reference is made to specific codes or standards governing the installation of specified items, installation shall in all cases be in strict accordance with the referenced codes and standards. Where no reference is made to specific codes or standards, installation shall conform to the generally recognized applicable standards for first-class installation of the specific item to be installed. Contractors are expected to be proficient and skilled in their respective trades and knowledgeable of the National Fire Protection Association (NFPA), the current edition of the Virginia Uniform Statewide Building Code (USBC) and its referenced technical codes and standards, Occupational Safety and Health Act (OSHA) and other codes and standards applicable to installations and associated work by its trade and/or that are applicable to the Work.

SECTION 14. SUBMITTALS

- 14.1 General:** The Contractor shall submit for the approval of Transportation Division Manager all submittals required by the specifications or requested by Transportation Division Manager. All such submissions shall be made with such promptness as to cause no delay in this or any other part of the project, and to allow reasonable time for checking, correcting, resubmitting, and re-correcting. No part of the Work dealt with by a submittal shall be fabricated by the Contractor, save at Contractor's own risk, until such approval has been given. The Contractor shall maintain one (1) set of approved submittals at the jobsite at all times.
- 14.2 Format:** Submittals shall be made in such number of copies that two (2) approved copies may be retained by Transportation Division Manager. Each submission shall be accompanied by a letter of transmittal listing the contents of the submission and identifying each item by reference to specification section or drawings. All submittals shall be clearly labeled with the name of the project and other necessary information. Catalog plates and other similar material that cannot be so labeled conveniently, shall be bound in suitable covers bearing the identifying data.
- 14.3 Supporting Material:** Submittals shall be accompanied by all required certifications and other such supporting material and documents, and shall be submitted in such sequence or in such groups that all related items may be checked together. When submittals cannot be checked because the submission is not complete, or because submittals on related items have not been received, then such submittals will be returned without action or will be held, not checked, until the material which was lacking is received.
- 14.4 Coordination:** Submittals shall have been reviewed by the Contractor and coordinated with all other related or affected work before they are submitted for

approval, and shall bear the Contractor's certification that it has checked and approved them as complying with the information given in the Contract Documents. Submittals made without such certification and coordination will be returned to the Contractor without action, and will not be considered a formal submission. The Contractor shall be responsible for checking all dimensions and coordinating all material and trades to ensure that the material proposed will fit in the space available and be compatible with other material provided.

14.5 Variations: If the submittals show variations from the Contract Documents because of standard shop practice or other reasons, the Contractor shall make specific mention of such variation in Contractor's letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment; otherwise the Contractor will not be relieved of the responsibility for executing the Work in accordance with the Contract Documents even though such submittals have been approved.

14.6 "Or Equal": The drawings and/or specifications may indicate that Transportation Division Manager designed or detailed a portion of the plans around a particular product (most commonly a piece of equipment). Should a different product be proposed by the Contractor and accepted, all modifications, rerouting, relocations, and variations required for proper installation and coordination to comply with the design concept and requirements of the Contract Documents shall be the sole responsibility of the Contractor and shall be made at no extra cost to the City. This naming of a particular product, around which the plans were designed or detailed, is not intended to preclude the use of other products or favor the product named when a "brand name or equal" specification has been used. (See also Section 10 of Instructions to Bidders.) Rather it is only intended to acknowledge the reality that in many instances Transportation Division Manager must design around the dimensions and characteristics of a particular product.

14.7 Review by Transportation Division Manager: Transportation Division Manager will review and respond to the submittals within fourteen (14) calendar days. Checking and/or approval of submittals will be for general conformance with the design concept of the project and compliance with the information given in the Contract Documents, and will not include verification of quantities, detailed dimensions, nor adjustments of dimensions to actual field conditions. Approval shall not be construed as permitting any departure from Contract requirements, authorizing any increase in price or time for completion or relieving the Contractor of the responsibility for any error in details, dimensions, or otherwise that may exist.

14.8 The Work shall be in accordance with approved submittals.

SECTION 15. INSPECTION AND INDEPENDENT TESTING

15.1 Inspection and Testing: All material and workmanship shall be subject to inspection, examination, and testing by Transportation Division Manager at any and all times during manufacture and/or construction. Transportation Division Manager shall have authority to reject defective material and workmanship and require its correction. Rejected workmanship shall be satisfactorily corrected and

rejected material shall be satisfactorily replaced with proper material without charge therefore, and the Contractor shall promptly segregate and remove the rejected material from the premises. If the Contractor fails to proceed at once with replacement of rejected material and/or the correction of defective workmanship, the City may, by contract or otherwise, replace such material and/or correct such workmanship and charge the cost to the Contractor, and/or may terminate the right of the Contractor to proceed as provided in Sections 26 or 27 of these General Conditions, the Contractor and surety being liable for any damage to the same extent as provided for in those Sections.

15.2 Payment for Inspection, Testing, and Certification:

- a.** Jobsite inspections, tests conducted on site, or tests of material gathered on site which the Contract requires to be performed by independent testing entities shall be contracted and paid for by the City. The Contractor shall promptly furnish, without additional charge, all reasonable facilities, labor, and material necessary for making such tests. Except as provided in Section 15.3 below, whenever such examination and testing finds defective material, equipment, or workmanship, the Contractor shall reimburse the City for the cost of reexamination and retesting.
- b.** Although conducted by independent testing entities, the City will not contract and pay for tests or certifications of material, manufactured products or assemblies which the Contract, codes, standards, etc. require to be tested and/or certified for compliance with industry standards such as Underwriters Laboratories, Factory Mutual or ASTM. If there are any fees to be paid for such tests and certifications, they shall be paid by the Contractor.
- c.** The Contractor shall also pay for all inspections, tests, and certifications which the Contract specifically requires it to perform or pay, together with any inspections and tests which it chooses to perform for its own quality control purposes.

15.3 Examination of Completed Work: Should it be considered necessary or advisable by City or Transportation Division Manager at any time before final acceptance of the entire Work to make an examination of any part of the Work already completed, by removing or tearing out portions of the Work, the Contractor shall on request promptly furnish all necessary facilities, labor, and material to expose the Work to be tested to the extent required. If such Work is found to be defective in any respect, due to the fault of the Contractor or its Subcontractors, Contractor shall pay for all the expenses of uncovering the Work, of examination and testing, and of satisfactory reconstruction. If, however, such Work is found to meet the requirements of the Contract, the actual cost of the Contractor's labor and material necessarily involved in uncovering the Work, the cost of examination and testing and Contractor's cost of material and labor necessary for replacement shall be paid to the Contractor and it shall, in addition, if completion of the Work has been delayed thereby, be granted a suitable extension of time.

- 15.4 Suspension of Work:** The City may suspend the Work when in its judgment the drawings and specifications are not being followed. Any such suspension shall be issued in writing and continued only until the matter in question is resolved to the satisfaction of the City. The cost of any such Work stoppage shall be borne by the Contractor unless it is later determined that no fault existed in the Contractor's Work.
- 15.5 Project Inspector:** Failure of the Project Inspector to note or require correction of improper or defective work does not relieve the Contractor from its responsibility to correct such improper or defective work. The Project Inspector has no authority to and shall not:
- a. Enter into the area of responsibility of the Contractor's superintendent;
 - b. Issue directions relative to any aspect of construction means, methods, techniques, sequences or procedures, or in regard to safety precautions and programs in connection with the Work;
 - c. Authorize or suggest that the City occupy the project, in whole or in part; or
 - d. Issue a certificate for payment.

SECTION 16. USE OF PREMISES AND REMOVAL OF DEBRIS

- 16.1 Jobsite Coordination:** The Contractor shall perform the Contract in such a manner as not to interrupt or interfere with the operation of any existing activity on the premises or with the work of any other contractor.
- 16.2 Storage of Material:** The Contractor shall store apparatus, material, supplies, and equipment in such orderly fashion at the site of the Work as will not unduly interfere with the progress of its Work or the work of any other contractor.
- 16.3 Jobsite Appearance:** The Contractor expressly undertakes, either directly or through its Subcontractor(s), to clean up frequently all refuse, rubbish, scrap material, and debris caused by his operations, to the end that at all times the jobsite shall present a neat, orderly, and workmanlike appearance. No such refuse, rubbish, scrap material, and debris shall be left within the completed Work nor buried on the building site, but shall be properly protected and removed from the site and properly disposed of in a licensed landfill or otherwise as required by law.
- 16.4 Final Cleaning:** The Contractor expressly undertakes, either directly or through its Subcontractor(s), before final payment, to remove all surplus material, false work, temporary structures, including foundations thereof, and debris of every nature resulting from its operations and to put the site in a neat, orderly condition, to thoroughly clean and leave reasonably dust free all finished surfaces including all equipment, piping, etc., on the interior of all buildings included in the Contract; and to thoroughly clean all glass installed under the Contract including the removal of all paint and mortar splatter and other defacements. If a Contractor fails to clean up at the completion of the Work, the City may do so and charge for costs thereof to the Contractor in accordance with these General Conditions.

- 16.5 Erosion Control:** During and at completion of the Work, the Contractor shall prevent site soil erosion, the runoff of silt and/or debris carried by water from the site, and the blowing of dust or debris off the site in accordance with the applicable requirements and standards of the Virginia Erosion and Sediment Control Handbook, latest edition, and of the Contract Documents.

SECTION 17. PROTECTING PERSONS AND PROPERTY

- 17.1 Protection on Site:** The Contractor expressly undertakes both directly and through its Subcontractor(s), to take every reasonable precaution at all times for the protection of all persons and property which may come on the jobsite or be affected by the Contractor's operation in connection with the Work.
- 17.2 Safety and Health Precautions:** The Contractor shall be solely responsible for initiating, maintaining, and supervising all safety and health precautions and programs in connection with the Work, including but not limited to provision of appropriate sanitation facilities, if applicable.
- 17.3 Protecting the Public:** The Contractor shall in all cases protect the public and the Work, during its execution, by posting and maintaining, at its expense, appropriate signs, barricades, barriers, lights, flagmen, and other safety devices in accordance with the current edition of the "Virginia Work Area Protection Manual".
- 17.4 Protecting the Work and Adjacent Property:** The Contractor shall continuously maintain adequate protection of all the Work from damage and shall protect the City's property from injury or loss arising in connection with this Contract. The Contractor shall adequately protect adjacent property to prevent any damage to it or loss of use and enjoyment by its owners. The Contractor shall provide and maintain all passageways, guard fences, lights, and other facilities for protection required by public authority, local conditions, any of the Contract Documents or erected for the fulfillment of its obligations for the protection of persons and property.
- 17.5 Emergencies:** In an emergency affecting the safety or life of persons or of the Work, or of the adjoining property, the Contractor, without special instruction or authorization from Transportation Division Manager, shall act, at Contractor's discretion, to prevent such threatened loss or injury. Also, should Contractor, to prevent threatened loss or injury, be instructed or authorized to act by Transportation Division Manager, Contractor shall so act immediately, without appeal.

SECTION 18. DAMAGES TO THE WORK AREA

- 18.1 Damage to the Work:** The Contractor shall have charge of and be solely responsible for the entire Work and be liable for all damages to the Work including, but not limited to any of the damages hereafter mentioned, and to any property in the vicinity of the Work, until its completion and acceptance by Transportation Division Manager.

- a. Where the work involves alterations, renovations, or modifications to any existing building, the Contractor shall familiarize itself with the structural condition of such building before proceeding with any work. It shall be the Contractor's responsibility to take all necessary safeguards to protect and maintain all parts of the building in a safe condition at all times during the process of construction and to protect from damage those portions of the building that are to remain.
- b. Under no condition shall any load be placed on any part of a building, whether new or existing, in excess of the load the structure will safely support, and no structural member(s) shall be cut or altered without the written consent of Transportation Division Manager.
- c. The Contractor shall conduct all operations in such a manner as to avoid damage to existing work and surfaces within any existing building that are to remain. Any and all damaged work and surfaces shall be repaired, replaced, or restored to their original condition at the time when this work was started, and the expense of such work shall be borne by the Contractor.

18.2 Damage to Utilities: The respective Utility Company shall be given a minimum of forty-eight (48) hours notice prior to any adjustment of utilities, and the Contractor shall comply with the provisions of the Virginia Underground Utilities Damage Prevention Act, Section 56-265.14 et seq., of the Code of Virginia. Damages that may occur to the utilities during the Work shall be the sole responsibility of the Contractor.

18.3 Relocation of Utilities: Should any utilities require adjustment during the Work, it shall be the Contractor's responsibility to have such utilities relocated as a part of the Work and to contact and cooperate with the respective Utility Company in performance of such operations.

18.4 Damage to Other Work and Existing Structures: The Contractor shall take into account all other work which shall be done by other parties on the jobsite, either now known or which may become necessary during the progress of the Work, and shall be responsible for any damage done to the other work. Damage to concrete curbs, gutters, sidewalks, or any existing facility that may occur during the construction shall be repaired or replaced by the Contractor, at its sole expense, as directed by and to the satisfaction of Transportation Division Manager.

18.5 Weather Damage: Damage with respect to the Work caused by the weather shall be the responsibility of the Contractor.

18.6 Blasting: Any damage that may occur due to blasting shall be the sole responsibility of the Contractor.

SECTION 19. CHANGES IN THE WORK

19.1 Changes in Drawings and Specifications: The City reserves the right to make such changes in the drawings and specifications and in the character of the Work

as may be necessary or desirable to ensure completion in the most satisfactory manner, provided such changes do not materially alter the original plans and specifications or change the general nature of the Work as a whole. Such changes shall not be considered as waiving or invalidating any condition or provision of the Contract and Bonds. Such changes shall be issued by Transportation Division Manager to Contractor.

19.2 Changes in Quantities: The City reserves the right to make changes in the quantities of the Work, as may be considered necessary or desirable and such changes shall not be considered as waiving or invalidating any conditions or provisions of the Contract or Bonds. The Contractor shall perform the Work as altered, whether increased or decreased, and no allowances shall be made for anticipated profits. Payment to the Contractor for the changes in the quantities of work shall be made only for the actual quantities of work performed and material furnished at the unit prices set forth in the Contract, except as provided below.

- a. When the quantity of work to be done or of material to be furnished under any item of the Contract is more than 125 percent of the quantity stated in the Contract, then either party to the Contract, upon demand, shall be entitled to negotiate for revised consideration on the portion of work above 125 percent of the quantity stated in the Contract.
- b. When the quantity of work to be done or of material to be furnished under any item of the Contract is less than 75 percent of the quantity stated in the Contract, then either party to the Contract, upon demand, shall be entitled to negotiate for revised consideration on the Work performed.
- c. Any consideration after that as set forth above shall be paid for as is hereinafter provided under Section 19.7. The foregoing notwithstanding, the quantity of work to be done or of material to be furnished under any item of the Contract, or the total original Contract shall not be increased more than 25 percent or reduced by more than 25 percent without the written consent of the Contractor and City.

19.3 Changes in the Work: No change with respect to the Work, except in an emergency situation threatening life or property, shall be made by the Contractor without the prior written approval of the City. The Contractor shall deliver any request for a change in the Work, Contract price, and/or completion time in writing to Transportation Division Manager within ten (10) calendar days of the occurrence requiring the change. The Contractor shall be required to certify the cause of the change order and, if appropriate, length of time involved. Payment for such changes approved by Transportation Division Manager shall be as set forth in Section 19.7. This written request is a condition precedent to the consideration of any such request by the City.

19.4 Delays:

- a. In the event a delay is caused by the City, Transportation Division Manager, any other separate contractor employed by the City, or any party for whom the Contractor deems the City responsible, or the agents and employees of any of them, the Contractor shall inform the City and

Transportation Division Manager immediately at the time of the occurrence by the fastest means available and shall give written notice within a reasonable time, not to exceed ten (10) calendar days. The Contractor's notice to Transportation Division Manager shall specify the nature of the delay claimed by the Contractor, the cause of the delay, and the impact of the delay on the Contractor's work schedule to the fullest extent possible. The City will, within a reasonable time, not to exceed ten (10) calendar days, respond to the Contractor's notice with a resolution, remedy, or direction to alleviate the delay or with a notice rejecting the claim for delay alleged to be caused by the City or parties for whom the City is responsible. If the delay is not then resolved, the Contractor may then submit a request for change order in accordance with Sections 19.3 and 19.5. In the event of other delays, the Contractor shall give the City and Transportation Division Manager written notice within ten (10) calendar days of the occurrence causing the delay.

- b.** No extension of time or compensation shall be allowed for a delay if the Contractor failed to give notice in the manner and within the time prescribed in Subsection 19.4 (a). Furthermore, no extension of time shall be given or additional compensation allowed for any delay unless a claim therefore is made in writing to the City, with a copy to Transportation Division Manager, within ten (10) calendar days of the occurrence causing the delay. The claim shall state the cause of the delay, the number of days of extension requested, and any compensation requested by the Contractor. The Contractor shall report the termination of the delay to the City and Transportation Division Manager not less than ten (10) calendar days after such termination. Failure to give notice of either the inception or the termination of the cause of delay or failure to present a claim for extension of time and/or monetary compensation within the times prescribed are conditions precedent to the assertion of any such claims by Contractor and shall constitute a waiver by Contractor of any such claims for compensation or extension based upon that cause.
- c.** Requests for compensation for delays must be substantiated by itemized data and records clearly showing that the work delayed were progressing according to the approved schedule and that the costs are directly attributable to the delay in the Work claimed. The Contractor shall provide written schedules demonstrating how the Work being delayed affects the approved schedule.
- d.** No extension of time, additional compensation, or change in the Contract price shall be allowed for any delays caused in whole or in part by the Contractor, any subcontractors, or any supplier. (For unavoidable justified delays, see Section 19.9 of these General Conditions.)

19.5 Change Orders: All change orders must indicate that the Contract Time for Completion is not changed or is either increased or decreased by a specific number of days. Any change or requested change in the Contract price shall also be included in the change order. The Contractor must provide written justification for an extension of the Time for Completion to Transportation

Division Manager and to the City. The written justification must demonstrate an anticipated actual increase in the time required to complete the Work beyond that allowed by the Contract as adjusted by prior change orders or amendments to the Contract, not just an increase or decrease in the time needed to complete some portion of the total Work. When a Critical Path Method (CPM) schedule is required by the Contract, or is used for the convenience of the Contractor, no increase to the Time for Completion shall be allowed unless, and then only to the extent that, the additional or changed Work increases the length of the critical path. Approved increases in time required to complete the Work shall be added to the Time for Completion. Decreases in time as a result of the change order shall be demonstrated by a decrease in the critical path of the work if CPM scheduling is properly used and updated by the Contractor. If not, the City shall determine the appropriate decrease by the best means possible. Approved decreases in the time needed to complete the Work shall be deducted from the Contract completion date. The change to time or Contract price allowed by each change order shall include all time and monetary impacts of the change, whether the change order is considered alone or with all other changes during the course of the project. Failure to include a change to time and/or Contract price in a change order shall waive any claims the Contractor may have for any change to the time and/or Contract price unless the parties mutually agree in writing to postpone a determination of the change to time and price resulting from the change order. Such a determination may be postponed not more than forty-five (45) calendar days to give the Contractor an opportunity to demonstrate a change in the time and/or price needed to complete the Work. However, the Contractor shall continue with the Work as may be directed by Transportation Division Manager and shall not stop work on the Project unless directed to do so by Transportation Division Manager.

19.6 Extra Work: The City reserves the right to make alterations or changes in the Work as the Work progresses. When any work is necessary to the proper completion of the project which was not provided for in the Contract, the Contractor shall do such work, but only when and as ordered in writing by Transportation Division Manager. Payment for such extra work shall be made as hereinafter provided in Section 19.7.

19.7 Payment Methods for Extra Work: The extra work done by the Contractor as authorized and approved by Transportation Division Manager shall be paid for in the manner hereinafter described; and the compensation thus provided shall be accepted by the Contractor as payment in full for all labor, material, tools, equipment, incidentals, all superintendents' and timekeepers' services, all insurance, bonds, and all other reasonable overhead expenses incurred in the performance of the extra work. Payment for extra work may be made by one of the following methods, as agreed on in writing by Transportation Division Manager and the Contractor before said extra work is commenced, subject to all other conditions of the Contract:

- a. Unit prices; or
- b. Lump sum price; or

- c. The cost of change in work plus ten percent (10%) of allowable costs. Allowable costs for purposes of this paragraph shall only include labor, material, sales tax, the rental of power tools and equipment actually used, or a reasonable price for the use of power tools and equipment owned by the Contractor based upon their life expectancy and purchase price, utilities, pro rata charges for foremen, and all payroll charges such as employer's FICA contribution, Public Liability and Workers' Compensation Insurance, but only if all such costs are incurred as the direct result of the changes in the Work. The change in cost for labor and material bonds and for performance bonds relative to the value of the extra work shall be allowable cost but shall not be marked up. If any subcontractor at any tier does all or part of the Work, the subcontractor's markup on that Work shall be fixed at fifteen percent (15%) of the allowable cost as defined herein.

19.8 Disputed Claims for Extra Work: If one of the payment methods set forth in Section 19.7 is not agreed on by Transportation Division Manager, the City may retain either an independent contractor to perform such extra work or use its own forces to perform such extra work and the Contractor shall cooperate fully with the independent contractor or City in its performance of the extra work. However, Transportation Division Manager may also direct Contractor to perform such extra work and any dispute will be handled as set forth in Section 31 of these General Conditions.

19.9 Change in Contract Time or Contract Price: The Contractor may request an extension of time or change in the Contract price should the Work be obstructed or delayed by any justified unavoidable delays not caused in whole or in part by the Contractor, any subcontractor, or suppliers. However, delays caused by weather conditions will not be considered justified unavoidable delays unless they are caused by unusual weather as set forth in Section 4.2 of the Instructions to Bidders, in which case only an extension of time may be considered by City, but no additional compensation will be allowed for unusual weather. Furthermore, Contractor agrees that for any delays not caused by the City or any delays beyond the control of the City, no additional compensation will be due the Contractor and no change in the Contract price will be allowed by the City, only an extension of the Contract time will be considered by the City. The Contractor shall deliver requests for changes in the Contract price and/or completion time in writing to Transportation Division Manager within ten (10) calendar days of the occurrence requiring the change. Approved changes that alter the time of the Contract shall extend the completion time by a period equivalent to the certified time lost by such occurrence. No change in Contract price and/or completion time shall be allowed if the above notice has not been properly given, such notice being a condition precedent to any such request by the Contractor. However, the Contractor shall continue with the Work as may be directed by Transportation Division Manager and shall not stop work on the Project unless directed to do so by Transportation Division Manager.

SECTION 20. PAYMENT FOR WORK

- 20.1 Monthly Construction Estimates:** Monthly construction estimates shall be submitted to Transportation Division Manager, 1802 Courtland Road, N.E., Roanoke, Virginia 24012, no more than once every thirty (30) calendar days.
- 20.2 Preparing Progress Payment Requests:** In preparing construction estimates, the Contractor may request a progress payment based on the actual percentage of work completed during the preceding month. The estimate shall contain a breakdown of the total Contract amount; to include a separate breakdown of all approved change orders, into principal items of construction, showing the estimated quantity, unit price, and total for each item. In preparing progress payment requests, the material delivered on the site and preparatory work done may be taken into consideration, if properly documented, or as may be required by Transportation Division Manager so that quantities can be verified. In addition to material delivered on the site, material such as large pieces of equipment and items purchased specifically for the project, but stored off the site, may be considered for payment, provided prior written approval is given by Transportation Division Manager.
- 20.3 Progress Payments:** The City will make a progress payment to the Contractor on the basis of a duly certified and approved progress payment request for the work performed under the Contract. In the event that the City disagrees with the monthly construction progress payment request submitted by the Contractor, or in the event the As-Built Drawings are not being kept current, the City may withhold all or a portion of the progress payment until such dispute is resolved to the satisfaction of the City. If there are any objections or problems with the progress payment request, the City will notify the Contractor of such matters. If the progress payment request is approved by the City, payment will be made by the City to the Contractor not more than thirty (30) calendar days after such request has been approved. However, if there is an objection or problem with a progress payment request, the Contractor shall continue with the Work as may be directed by Transportation Division Manager and shall not stop work on the Project unless directed to do so by Transportation Division Manager. Any such disputes shall be handled as set forth in Section 31 of these General Conditions.
- 20.4 Retainage:** To ensure proper performance of the Contract, the City shall retain, unless stipulated otherwise, five percent (5%) of each progress payment until Final Acceptance of all work covered by the Contract. The Contractor may request that such retainage be paid into an escrow account on certain Contracts, pursuant to Section 2.2-4334 of the Code of Virginia. (See also Sections 6.2 and 14.6 of Instructions to Bidders.)
- 20.5 Ownership of Material and Work:** All material and work covered by progress payments shall become the property of the City. This provision shall not relieve the Contractor from the responsibility for all material and to maintain all completed work and to repair all damaged work. The Contractor shall not deem a progress payment as a waiver to complete the terms of the Contract or shift the risk of loss from the Contractor to the City. The Contractor warrants that Contractor has good title to all material, equipment, and supplies which

Contractor uses in the Work or for which Contractor accepts payment in whole or in part.

- 20.6 Payments to Others by Contractor:** The Contractor agrees that Contractor will comply with the requirements of Section 2.2-4354 of the Code of Virginia regarding Contractor's payment to other entities and that Contractor will take one of the two actions permitted therein within seven (7) calendar days after receipt of amounts paid to Contractor by the City. The Contractor agrees that Contractor shall indemnify and hold the City harmless for any lawful claims resulting from failure of the Contractor to make prompt payments to all persons supplying him equipment, labor, tools, or material in prosecution and completion of the Work provided for in the Contract. In the event of such claims, the City may, after providing written notice to the Contractor, withhold from any progress and/or final payment the unpaid sum of money deemed sufficient to pay all lawful claims and associated costs in connection with the Contract.
- 20.7 Final Payment:** Within thirty (30) calendar days after the Final Acceptance of the Work, the City shall pay the Contractor the Final Payment, less all prior payments, damages, setoffs, liquidated damages, any amounts withheld from retainage, or any other amounts Contractor may owe the City for any reason whatever.
- 20.8 Payment and Acceptance:** No payment, final or otherwise, nor partial or entire use, occupancy, or acceptances of the Work by the City shall be an acceptance of any work or material not in accordance with the Contract, nor shall the same relieve the Contractor of any responsibility for any faulty material or workmanship or operate to release the Contractor or its surety from any obligation under the Contract or the Performance Bond or the Labor and Material Payment Bond.
- 20.9 Right to Audit:** The Contractor agrees that the City, and any approving Federal or State Agency or any of their duly authorized representatives, shall have access to any books, documents, papers, records, schedules and electronic data of the Contractor which are pertinent to this Project for the purpose of making an audit, examinations, excerpts, copies or transcriptions and that Contractor will provide copies of such items to City upon City's request, at no cost to City.

SECTION 21. LIQUIDATED DAMAGES

If liquidated damages are provided by the Contract, the following provisions shall apply:

- a. Subject to the provisions of the General Conditions granted for extension of time allowed for completion of the Work, if the Work is not substantially completed by the date required in the Contract, the Contractor shall owe to the City, not as a penalty but as step one liquidated damages, the sum stated in the Contract for step one liquidated damages for each and every calendar day of delay in substantial completion.
- b. Once the Work is substantially complete, the accrual of step one liquidated damages shall stop and the Contractor shall have thirty (30) calendar days in which to achieve Final Acceptance of the Work.

- c. If Final Acceptance of the Work is not achieved by the thirtieth (30th) calendar day after substantial completion, and if any extension of time is not granted by the City, the Contractor shall owe to the City, not as a penalty but as step two liquidated damages, the sum stated in the Contract as step two liquidated damages for each and every calendar day of delay in Final Acceptance. All such liquidated damages set forth in this Section 21 are in addition to any other damages the City may be entitled to recover from the Contractor.

SECTION 22. INSPECTION FOR SUBSTANTIAL COMPLETION AND FINAL ACCEPTANCE

- 22.1 Substantial Completion:** The Contractor shall notify the City, in writing, that the Work will be ready for inspection to determine if it is substantially complete and ready for testing on or after a certain date, which date shall be stated in the notice. The notice shall be given at least ten (10) calendar days in advance of said date and shall be forwarded through Transportation Division Manager. Inspection and testing shall take place at a time mutually agreeable to the Contractor, City, and Transportation Division Manager. The inspection shall determine if substantial completion has been accomplished. If so, Transportation Division Manager will issue a Certificate of Substantial Completion and attach a written list of unfinished Work and defective Work, commonly referred to as a "punch list", which must be finished and corrected to obtain Final Acceptance.
- 22.2 Request for Final Acceptance:** The Contractor shall notify Transportation Division Manager, in writing, that the Work will be ready for final inspection and testing on or after a certain date, which date shall be stated in the notice. That inspection and any necessary testing shall be conducted in the same manner as the inspection for substantial completion. When the Work is finally and totally complete, including the elimination of all known deficiencies, the Work shall be finally accepted by the City and final payment shall be made in accordance with Section 20.7 of these General Conditions.
- 22.3 Final Inspection:** Transportation Division Manager will conduct the final inspection, and may elect to have other persons of its choosing also participate in the inspection. If one or more re-inspection is required, the Contractor shall reimburse the City for all costs of re-inspection or, at the City's option, the costs may be deducted from payments due to the Contractor.
- 22.4 As-Built Drawings:** No Contract retainage will be released prior to receipt of all approved As-Built Drawings.
- 22.5 Final Acceptance:** Upon successful completion of the final inspection and all Work required by the Contract, including but not limited to the delivery of the following documents and items; As-Built drawings, operation and maintenance manuals, written warranties, Certificate of Substantial Completion, Affidavit of Payment of Claims, and MBE/WBE/SB/VB Usage Status Form, Transportation Division Manager will furnish a written Certificate of Final Acceptance of the Work to the Contractor. Transportation Division Manager may accept the Work for occupancy or use while asserting claims against the Contractor, disputing the amount of compensation due to the Contractor, disputing the quality of the Work, its completion, or its compliance with the Contract Documents, and the like.

- 22.6 Release By Contractor:** The acceptance by the Contractor of the final payment or a payment designated as such shall be and does operate as a release by the Contractor of all claims by the Contractor against City and of all other liability of the City to the Contractor whatever, including liability for all things done or furnished in connection with the Work or the Contract.

SECTION 23. WARRANTY OF MATERIAL AND WORKMANSHIP

- 23.1** The Contractor warrants that, unless otherwise specified, all material and equipment incorporated in the Work under the Contract shall be new, in first class condition, and in accordance with the Contract Documents. The Contractor further warrants that all workmanship shall be of the highest quality and in accordance with the Contract Documents and shall be performed by persons qualified at their respective trades.
- 23.2** Work not conforming to these warranties shall be considered defective.
- 23.3** These warranties of material and workmanship are separate and independent from and in addition to any of the Contractor's other guarantees or obligations in this Contract or that may arise by law.

SECTION 24. GUARANTEE OF WORK

- 24.1 Two Year Warranty:** The Contractor does warrant and guarantee the Work against defects or deficiencies in the Work and in all material, equipment, and workmanship for a period of two (2) years from the date of Final Acceptance.
- 24.2 Defective Work:** The Contractor agrees it shall repair or replace, at Contractor's sole expense, and to the satisfaction of Transportation Division Manager, any work, material, equipment, or part that is found, by Transportation Division Manager, to be defective.
- 24.3 Repairs:** If, within any guarantee period, defects are noticed by Transportation Division Manager which require repairs or changes in connection with the guaranteed work, those repairs or changes being in the determination of Transportation Division Manager rendered necessary as the result of the use of material, equipment, or workmanship which is defective, inferior, or not in accordance with the terms of the Contract, then the Contractor shall, promptly upon receipt of notice from Transportation Division Manager, such notice being given not more than four weeks after the expiration of any such guarantee period, and without any expense to the City:
- a.** Place in satisfactory condition all guaranteed work and correct all defects therein; and
 - b.** Make good all damage to the structure, site, equipment, or contents thereof, which in the determination of Transportation Division Manager is the result of the use of material, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the Contract; and

- c. Make good any work or material or the equipment and contents of structures or the site disturbed in fulfilling any such guarantee.

24.4 Warranty Extension: In any case, where in fulfilling the requirements of the Contract or any guarantee embraced in or required thereby, the Contractor disturbs, damages or repairs any work guaranteed under the Contract, Contractor shall restore such work to a condition satisfactory to Transportation Division Manager and guarantee such restored work to the same extent and for a like additional period of time as it was originally guaranteed under this Contract.

24.5 Correction of Defects: If the Contractor, after notice, fails to proceed promptly, but in no event longer than thirty (30) calendar days after such notice, unless otherwise agreed to by Transportation Division Manager, to comply with the terms of the guarantee and/or correct the Work, the City may have the defects corrected by its own forces or another contractor and the Contractor and its surety shall be liable for all costs and expenses incurred in doing so.

24.6 Nothing contained in this section shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might have under the Contract Documents or the law of Virginia, including liability for defective work.

SECTION 25. STOP WORK ORDER

In the event that conditions exist such that no work can or should continue, other than the routine closing of the site, the Contractor may submit to Transportation Division Manager a request to stop work or Transportation Division Manager on his/her own may issue a Stop Work Order. Transportation Division Manager will, if he/she approves the request or issues the order himself/herself, deliver a written "Stop Work Order" to the Contractor stipulating the effective date and the Contract time remaining. The Work, other than the routine closing of the site, and Contract time shall not again be started until a written "Resume Work Order" is received by the Contractor from Transportation Division Manager. When the Work is stopped at the request of the Contractor and through no fault of the Contractor, the Contractor may only recover from the City payment for the cost of the Work actually performed, together with reasonable overhead and profit thereon up to that time, but profit shall be recovered only to the extent that the Contractor can demonstrate that it would have had profit on the entire Contract if it had completed the Work. The Contractor may not receive profit or any other type of compensation for parts of the Work not performed, including, but not limited to, home office overhead or any other such costs. The Contractor may also recover the actual cost of physically closing down the jobsite, but no other costs of the Stop Work Order. The City may offset any claims it may have against the Contractor against the amounts due to the Contractor. In no event shall the Stop Work Order to the Contractor relieve in any way the obligations of the Contractor's surety on its payment and performance bonds. When work is stopped by Transportation Division Manager due to any fault of the Contractor, the Contractor may not recover any of the above costs or items or any other costs, profits, expenses, or damages of any type.

SECTION 26. TERMINATION OF CONTRACT FOR CAUSE

- 26.1 Termination for Cause:** If the Contractor should be adjudged a bankrupt, or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of its insolvency, the City may terminate the Contract. If the Contractor should refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper material, or if it should fail to make prompt payment to subcontractors or suppliers of material or labor, or disregard laws, ordinances, or the written instructions of Transportation Division Manager, or otherwise fails to comply with any of the terms or provisions of this Contract including, but not limited to, poor services, work or material, then the City may terminate this Contract. In no event shall termination for cause terminate the obligations of the Contractor's surety on its payment and performance bonds.
- 26.2 Possession of Work:** Upon termination of the Contract, the City may take possession of the premises and of all material, tools, and appliances thereon and finish the Work by whatever method the City may deem expedient. In such case the Contractor shall not be entitled to receive any further payment of any type. If the expense of finishing the Work, including compensation for additional managerial and administrative services, shall exceed the unpaid balance of the Contract price, the Contractor shall pay the difference to the City, together with any other cost or expenses of terminating the Contract and having it completed by others, together with any and all other damages City may be entitled to from the Contractor.
- 26.3 Alternative Termination:** If it should be judicially determined that the City improperly terminated this Contract for cause, then the termination shall be deemed to be a termination for the convenience of the City.
- 26.4 Termination Rights:** Termination of this Contract under Section 26 or Section 27 is without prejudice and in addition to any other rights or remedies of the City against the Contractor.

SECTION 27. TERMINATION FOR CONVENIENCE OF CITY

- 27.1 Termination for Convenience:** The City, at its discretion, may terminate this Contract at any time without cause, in whole or in part, upon giving the Contractor written notice of such termination. Upon such termination, the Contractor shall immediately cease work and remove from the jobsite all of its labor forces, equipment, and material as City elect not to purchase or to assume in the manner hereinafter provided. Upon such termination, the Contractor shall take such steps as City may require assigning to the City the Contractor's interest in all subcontracts and purchase orders designated by City. After all such steps have been taken to City's satisfaction; the Contractor shall receive as full compensation for termination and assignment only the following:
- a.** All amounts then otherwise due under the terms of this Contract for actual work performed and approved by City; and

- b. Reasonable compensation for the actual cost of demobilization incurred by the Contractor as a direct result of such termination. The Contractor shall not be entitled to any compensation for lost profits or for any other type of contractual compensation or damage, other than those provided by the preceding sentence, including any on site or home office overhead. Upon payment of the foregoing, City shall have no further liabilities or obligations to Contractor of any nature.

27.2 Termination Effect on Surety: In no event shall termination for the convenience of the City terminate the obligation of the Contractor's surety on its payment and performance bonds.

SECTION 28. PRECONSTRUCTION CONFERENCE

Transportation Division Manager shall notify the Contractor as to the location, date, and time of a preconstruction conference to confirm procedures for processing construction estimates for payment and related submissions and to discuss other matters pertaining to scheduling and execution of the Work.

SECTION 29. PROJECT SIGN(S)

The Contractor shall supply, erect, and maintain Project Sign(s) in accordance with the City of Roanoke Standard Detail. The sign(s) shall be located as directed by Transportation Division Manager. The Contractor shall not display any other signs or advertisements.

SECTION 30. ASSIGNMENTS

The Contractor shall not assign, in whole or in part, any of its rights, duties, or obligations under this Contract with the City without the prior written consent of the City.

SECTION 31. CONTRACTUAL DISPUTES

Contractual claims, whether for money or for other relief, including any disputes as to change orders or extra work, shall be submitted, in writing, no later than sixty (60) calendar days after final payment or payment designated as a final payment; however, written notice of the Contractor's intention to file such claim must be given at the time of the occurrence or beginning of the work upon which the claim is based. Such notice is a condition precedent to the assertion of any such claim by the Contractor. A written decision upon any such claims will be made by the City Manager or his/her designee (hereafter City Manager) within thirty (30) calendar days after submittal of the claim and any practically available additional supporting evidence required by the City Manager. The Contractor may not institute legal action prior to receipt of the City's decision on the claim unless the City Manager fails to render such decision within one hundred twenty (120) calendar days from submittal of its claim. The decision of the City Manager shall be final and conclusive unless the Contractor within six (6) months of the date of the final decision on a claim or from expiration of the 120 day time limit, whichever occurs first, initiates legal action as provided in Section 2.2 - 4364, of the Code of Virginia. Failure of the City to render a decision within said one hundred twenty (120) calendar days shall not result in the Contractor being awarded the relief claimed nor shall it result in any other relief or penalty. The sole result of the City's failure to render a decision

within said one hundred twenty (120) calendar days shall be Contractor's right to immediately institute legal action. No administrative appeals procedure pursuant to Section 2.2 - 4365, of the Code of Virginia, has been established for contractual claims under this Contract.

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CITY OF ROANOKE, VIRGINIA

SUPPLEMENTAL GENERAL CONDITIONS

Additional frequently used Supplemental General Conditions are as follows:

- A. Regardless of the amount of the Contract awarded for this Work, Contractor shall provide the minimum insurance requirements set forth in Sections 4.1 and 4.2 of the General Conditions and Section 4.3 of the General Conditions shall in no event be applicable.
- B. Regardless of the amount of the Contract awarded for this Work, Contractor shall provide a Performance Security and a Labor and Material Payment Security as referred to in Section 14.5 of the Instructions to Bidders.
- C. Prior to receiving Substantial Completion, submit 2 copies of Manufacturer and/or Contractor warranties or guarantees, applicable to materials or workmanship on this project, to the Owner for review and approval. Such warranties shall be in addition to any warranties provided for in the Contract and/or law. Such warranties shall be subject to City approval and shall not contain any indemnity requirements for the City, any limitations on liability, any venue or forum selection clause other than the City of Roanoke, Virginia, or any requirements for mediation or arbitration. Any such language in a warranty shall be void and the Contractor shall be held to any such warranties along with the manufacturer. Final acceptance of the Work shall not be granted unless or until such warranties have been accepted and approved by the City of Roanoke.
- D. The City of Roanoke reserves the right to perform concrete testing. Should the City choose to exercise this right, the following shall apply: Concrete Testing for this Contract shall comply with the following criteria:
 - 1. Concrete shall be inspected and tested as the work progresses. Failure to detect any defective work or material shall not in any way prevent later rejection when such defect is discovered nor shall it obligate the Owner for final acceptance.
 - 2. Testing Agency
 - a. All inspections and test shall be performed by an “Independent Testing Agency”, contacted by the Owner.
 - b. The Independent Testing Agency shall meet the requirements of ASTM E329. Its local branch office shall have been inspected within the past 3 years by the “Cement and Concrete Reference Laboratory” of the National Bureau of Standards (NBS) and shall have corrected any deficiencies noted. A copy of the NBS Inspection Report shall be submitted to the Transportation Division Manager prior to approval of the Testing Agency.
 - c. The Independent Testing Agency and its representatives are not authorized to revoke, alter, relax, enlarge or release any

requirement of the contract documents, not approve or accept any portion of the work.

3. The latest editions of standards of the following organizations shall apply to this project:
 - a. American Concrete Institute (ACI)
 - b. American Society for Testing and Materials (ASTM)
 - c. Concrete Reinforcing Steel Institute (CRSI)
 - d. American Institute of Steel Construction (AISC)
 - e. American Association of State Highway and Transportation Officials (AASHTO).
4. The following testing services shall be performed by the Independent Testing Agency:
 - a. Conduct strength tests of concrete during construction in accordance with the following procedures:
 - i. Secure composite samples in accordance with ASTM C 172 at point of placement. Each sample shall be obtained from a different batch of concrete on a random basis.
 - ii. Mold and cure three specimens from each sample in accordance with ASTM C 31. Any deviations from the requirements of this Standard shall be recorded in the test report.
 - iii. Test specimens in accordance with ASTM C 39. At least three specimens shall be tested: two at 28 days for acceptance and one at 7 days for information. The acceptance test results shall be the average of the strengths of the two specimens tested at 28 days. If one specimen in a test manifests evidence of improper sampling, molding or testing, it shall be discarded and the strength of the remaining cylinder shall be considered the test result. Sufficient test cylinders shall be made and tested at the appropriate ages to determine when operations such as release of false work or placing the structure in service can occur.
 - iv. Samples for acceptance tests for each mixture or class of concrete shall be taken not less than once for each 50 cubic yards of concrete or once for each major placement.

- v. Any concrete represented by a test which indicates a strength which is less than the specified 28-day compressive strength by more than 500 psi will be rejected and shall be removed and replaced with acceptable concrete. Such rejection shall prevail unless: (1) The Contractor, at his expense, obtains and submits evidence acceptable to the Transportation Division Manager that the strength and quality of the rejected concrete is acceptable. If such evidence consists of cores taken from the work, the cores shall be obtained and tested in accordance with the standard methods of ASTM C 42.

5. Testing Laboratory Responsibilities

- a. Provide qualified personnel at site after due notice; cooperate with Transportation Division Manager and Contractor in performance of services.
- b. Perform specified inspection, sampling, and testing of products in accordance with specified standards. The following test shall be performed: compressive strength.
- c. Ascertain compliance of materials with requirements of Contract Documents.
- d. Promptly (by Fax) notify Transportation Division Manager and Contractor of observed irregularities or non-conformance of Work or products.
- e. Perform additional inspections and tests required by Transportation Division Manager.
- f. After each inspection and test, promptly submit two (2) copies of laboratory report to the Transportation Division Manager and Contractor. Include: Date issued, Project title and number, name of inspector, date and time of sampling or inspection, identification of product and Specification section, exact location in the Project, type of inspection or test, date of test, results of tests, and conformance with Contract Documents. When requested by Engineer, provide interpretation of test results.

6. Contractor's Responsibilities

- a. Cooperate with laboratory personnel, and provide access to Work, and to manufacturer's facilities, when required.

- b. Provide incidental labor and facilities to provide access to work to be tested, to obtain and handle samples at the site or at source of products to be tested and to facilitate tests and inspections.
- c. Notify Transportation Division Manager and laboratory 24 hours prior to expected time for operations requiring inspection and testing services.
- d. Arrange with laboratory and pay for additional samples and tests required by Contractor beyond specified requirements.
- e. All cost associated with concrete retesting of failed tested work, as described in Section D above, shall be paid for by the Contractor.

END.

TECHNICAL SPECIFICATIONS

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Title of work, and type of Contract:
 - 1. ADA Concrete Handicap Ramp Installation and Associated Work
 - 2. Unit Price

1.02 RELATED REQUIREMENTS

- A. Contract forms and Conditions of the Contract listed in Table of Contents.
- B. Site subsurface investigation, report and boring logs: Geotechnical Data.
- C. Related requirements specified in other Sections listed in Table of Contents, including all Sections under Division 1, unless otherwise specified.

1.03 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work of this Contract comprises:
 - 1. Removal and disposal of existing sidewalks, curb and gutter, curb and curb cut ramps at locations identified on location spreadsheet.
 - 2. Replacement of existing sidewalks, curb and gutter, curb and curb cut ramps at locations identified on location spreadsheet.

1.04 CONTRACT METHOD

- A. Construct the Work under a unit price sum contract.
- B. The Owner reserves the right to award other contracts for additional work in connection with this project as required to install improvements and to equip the project.

1.05 PARTIAL OWNER OCCUPANCY

- A. Execute Certificate of Substantial Completion for each designated portion of Work prior to Owner occupancy.

1. Access for Owner personnel.

1.06 PRE-ORDERED PRODUCTS

- A. On execution of Owner-Contractor Agreement, Contractor shall execute purchase agreement with the designated supplier, in accordance with terms stated herein.
- B. Contract responsibility for purchase, handling, and installation for pre-ordered products is the same as for other Contractor-furnished products.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01090

REFERENCE STANDARDS (Architectural, Civil & Structural)

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Applicability of Reference Standards.
- B. Provisions of Reference Standards at site.
- C. Acronyms used in Contract documents for Reference Standards and current designations. Source of Reference Standards.

1.02 RELATED REQUIREMENTS

Conditions of the Contract.

1.03 QUALITY ASSURANCE

- A. For products or workmanship specified by association, trades, or Federal Standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. The date of the standard is that in effect as of the Bid date, or date of Owner-Contractor Agreement when there are no bids, except when a specific date is specified.
- C. When required by individual Specifications section, obtain copy of standard. Maintain copy at jobsite during submittals, planning, and progress of the specific work, until Substantial Completion.

1.04 SCHEDULE OF REFERENCES

AA	The Aluminum Association 818 Connecticut Avenue, N.W. Washington, DC 20006
AAMA	Architectural Aluminum Manufacturers Association 35 East Wacker Drive Chicago, IL 60601

AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, N.W. Washington, DC 20001
ACI	American Concrete Institute Box 19150 Reford Station Detroit, MI 48219
ADA	Americans with Disabilities Act, 2010
ADA	Accessibility Standards and Federal Standards for ADA Installation
ANSI	American National Standards Institute 1430 Broadway New York, NY 10018
ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103
AWWA	American Water Works Association 6666 W. Quincy Avenue Denver, CO 80235
CPSC	U. S. Consumer Product Safety Commission
NBS	National Bureau of Standards, Product Standards U. S. Department of Commerce Washington, DC 20234
UL	Underwriters' Laboratories, Inc. 333 Pfingsten Road Northbrook, IL 60062
VDOT	Virginia Department of Transportation 1401 East Broad Street Richmond, VA 23219
IBC	International Building Code
WVWA	Western Virginia Water Authority
COR	City of Roanoke Standards - Utility Backfill Standards - Utility Restoration Standards

PART 2 PRODUCTS - Not Used
PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01270

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Basis for measurement and payment.

1.2 REFERENCES

- A. Publications listed below form part of section to extent referenced. Publications are referenced in text by basic designation only.

- 1. VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT)

- a. VDOT RBS (2007) Road and Bridge Specifications
 - b. VDOT STD (2008) Road and Bridge Standards

1.3 GENERAL

- A. Payment for all work will be on the basis of the unit prices stated in the Bid Form and upon the actual work performed and materials installed, complete-in-place, in accordance with the Contract Documents.
- B. Include the cost for items not listed in the Bid Form, which are mentioned in the specifications, indicated on the drawings, or normally a part of the work described by the Contract Documents, in the cost of the appropriate items that are listed in the Bid Form.
- C. No separate payments will be made for work, material, equipment, or other expense that is not part of construction items listed in the Bid Form, subject to conditions described in paragraph 1.3, B, above.
- D. Bid quantities shown in the Bid Form are estimated and will be adjusted based on the actual provided quantities.

1.4 DESCRIPTION OF BID ITEMS

- A. 4" CONCRETE SIDEWALK using A4 (4000 psi) concrete shall be measured and paid per square foot, complete-in-place. The price shall include all labor and materials for demolition and disposal of existing sidewalks, excavation, fill, backfill, compaction, forming, concrete and topsoil and seed as required.
- B. VDOT STD CG-2 CURB shall be measured along face of curb and be paid per linear foot, complete-in-place. No additional compensation will be

allowed for radial curb. The price shall include all labor and materials for demolition and disposal of existing curb, excavation, fill, backfill, compaction, forming, concrete, asphalt patch and topsoil and seed as required.

- C. VDOT STD CG-6 CURB & GUTTER shall be measured along face of curb and be paid per linear foot, complete-in-place. No additional compensation will be allowed for radial curb and gutter. The price shall include all labor and materials for demolition and disposal of existing curb and gutter, excavation, fill backfill, compaction, forming, concrete, asphalt patch and topsoil and seed as required.
- D. VDOT STD CG-12 HANDICAP RAMP shall be measured and paid per each. The price shall include all labor and materials for demolition and disposal of existing curb cut ramps, excavation, fill, backfill, compaction, forming, concrete, asphalt patch, detectable warning plates, and topsoil and seed as required. This pay item shall also include removal and reinstallation of adjacent curb, curb and gutter, sidewalk, and pavement as necessary to accommodate construction. For VDOT CG-12 Type B Ramps, the cost of any curb at the back of the walk shall not be measured and paid for separately and shall be included in the unit cost of the ramp.
- E. INFRARED ASPHALT shall be measured and paid per linear foot, complete in place. The price shall include all equipment, labor and materials required to make pavement patches seamless through use of infrared technology.

SECTION 01570

TRAFFIC REGULATION

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Construction Parking Control.
- B. Flagmen.
- C. Flares and Lights.
- D. Haul Routes.
- E. Traffic Signs and Signals.
- F. Removal.

1.02 RELATED REQUIREMENTS

- A. Specified elsewhere: Section 02080 - Traffic, Property, and Utility Maintenance and Coordination.

PART 2 PRODUCTS

2.01 SIGNS, SIGNALS, AND DEVICES

- A. Post-mounted and wall-mounted traffic control and informational signs.
- B. Traffic Cones and Drums, Flares and Lights: As approved by local jurisdiction.
- C. Flagman Equipment: As required by local jurisdiction.

PART 3 EXECUTION

3.01 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles.
- B. Monitor parking of construction personnel's vehicles. Maintain vehicular access to and through parking areas.

- C. Prevent parking on or adjacent to access roads or in non-designated areas.
- 3.02 FLAGMEN
- A. Provide trained and equipped flagmen to regulate traffic when construction operations or traffic encroach on public traffic lanes.
- 3.03 FLARES AND LIGHTS
- A. Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.
- 3.04 HAUL ROUTES
- A. Consult with authorities, establish public thoroughfares to be used for haul routes and site access.
 - B. Confine construction traffic to designated haul routes.
 - C. Provide traffic control at critical areas of haul routes to regulate traffic, to minimize interference with public traffic.
- 3.05 TRAFFIC SIGNS AND SIGNALS
- A. At approaches to site and on site, install at crossroads, detours, parking areas and elsewhere as needed to direct construction and affected public traffic.
 - B. Relocate signs and signals as Work progresses, to maintain effective traffic control.
- 3.06 REMOVAL
- A. Remove equipment and devices when no longer required. Repair damage caused by installation. Remove post settings to a depth of 2 feet.

END OF SECTION

SECTION 01700

CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Closeout Procedures.
- B. Final Cleaning.
- C. Project Record Documents.
- D. Operation and Maintenance Data.
- E. Warranties and Bonds.
- F. Spare Parts and Maintenance Materials.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract.
- B. Specified elsewhere:
 - 1. Section 01010 - Summary of Work

1.03 CLOSEOUT PROCEDURES

- A. Comply with procedures stated in General Conditions of the Contract for issuance of Certificate of Substantial Completion.
- B. When Contractor considers Work has reached final completion, submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's inspection.
- C. In addition to submittals required by the conditions of the Contract, provide submittals required by governing authorities, and submit a final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.
- D. Purchasing will issue final Change Order reflecting approved adjustments to Contract Sum not previously made by Change Order.

1.04 FINAL CLEANING

- A. Execute prior to final inspection.

- B. Clean exterior surfaces exposed to view; remove temporary labels, stains and foreign substances. Clean equipment and fixtures to a sanitary condition, clean or replace filters of mechanical equipment. Clean drainage systems.
- C. Clean site; sweep paved areas, rake clean other surfaces.
- D. Remove waste and surplus materials, rubbish, and construction facilities from the Project and from the site.

1.05 PROJECT RECORD DOCUMENTS

- A. Store documents separate from those used for construction.
- B. Keep documents current; do not permanently conceal any work until required information has been recorded.
- C. At Contract closeout, submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.

1.06 WARRANTIES AND BONDS

- A. Provide notarized copies. Execute Contractor's submittals and assemble documents executed by subcontractors, suppliers, and manufacturers. Provide table of contents and assemble in binder with durable plastic cover.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01850

SPECIAL CONDITIONS

PART I GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The specifications have been arranged and sectioned only as a means of reference and shall not be interpreted as being a proper or complete means or method in which to arrange, install or complete the work.
- B. The Contractor shall comply with "Rules and Regulations Governing Construction, Demolition and all Excavation" as adopted by the Safety Codes Commission of the Commonwealth of Virginia, OSHA. The Contractor is required to employ safe practices and comply with all safety standards and laws.
- C. The Contractor is required to notify Miss Utility at 1-800-552-7001 at least two, but not more than ten working days in advance of construction.
- D. The Contractor shall comply with the City of Roanoke Right-of-Way Excavation and Restoration Standards, latest edition.
- E. The Contractor shall not relocate any existing signs in the public street right-of-way without first consulting with the City Traffic Engineer. The Contractor shall provide a 4" diameter schedule 40 PVC sign post hole at the original sign location when installing new concrete. The City Traffic Engineer shall make the final determination when an existing sign must be relocated to accommodate new construction.

1.02 LOCATION OF WORK

- A. The site of the work is various locations Citywide, as shown the List of Locations provided herein.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 LAYING OUT WORK

- A. It is imperative that the Contractor work within the shown rights of way or easements, at all times, unless approved otherwise by the property owner and the Transportation Division Manager.

- B. The Contractor shall, at his expense, provide competent engineering survey services and shall provide and maintain accurate, detailed, survey work.
- C. Survey bench marks, baselines, station points, distances, offset lines, inverts, elevations, and other related information shall be laid out in accordance with the plans.
- D. The plans and supplementary drawings shall not be scaled and the Contractor must verify all dimensions and elevations at the site prior to proceeding with the work. The Contractor shall also verify existing utility locations prior to purchasing materials affected by these locations. This shall be done at Contractors expense and shall include, but not be limited to, Miss Utility locations.

3.02.1 TEMPORARY FACILITIES

- A. The Contractor may provide and maintain, at his expense, suitable field office facilities as required for the work and at locations approved by the Transportation Division Manager.
- B. The Contractor shall provide and maintain, at his expense, toilet accommodations for his employees at locations approved by the Transportation Division Manager. The sanitary facility shall comply with all Local and State Sanitary Health Regulations for the installation, use and waste removal.
- C. The Contractor shall provide and pay for all water, electricity, illumination, heat and other utilities required for the proper execution of the work.
- D. The Contractor shall provide and maintain all barricades, fences, and other protective devices required around the project site and storage area in order to protect the work, his employees and the public.

3.03 SEQUENCE OF WORK

- A. The Contractor shall coordinate his work with the other Contractors on this project as it may affect sequence.

3.04 HIGHWAY RIGHT OF WAY

- A. The Contractor shall obtain and bear the costs of all insurances set forth in the Supplementary Conditions, perfecting the permits and obtaining appropriate permission prior to beginning work within the rights of ways. The Contractor shall also pay for and arrange for all required inspections and tests.
- B. The project has been submitted to the City of Roanoke. The Contractor shall apply for the "Right-of-Way Excavation Permit", it shall become part

of this specification and any requirements of the permit more stringent than these specifications shall supersede this specification. The Contractor shall pay any and all charges, fees, and assessments from the City of Roanoke including the cost of the permit for this project. Only one permit will be required for the entire project.

3.05 OVERHEAD UTILITIES

- A. The Contractor shall contact utilities with overhead facilities in the project area or adjacent to the project area and request the utility to make safety arrangements to protect workers in the vicinity of the lines, in accordance with the Overhead Voltage Lines Safety Act (Section 59.1 - 406, et seq. of the Code of Virginia). The Contractor shall not proceed with work until such measures are in place.

3.06 CITY OF ROANOKE STANDARDS

- A. The Contractor shall comply with the construction standards and standard specifications and standard details of the City of Roanoke. Where they are more stringent than these Documents, the more stringent requirements shall apply.

3.07 PERMITS

- A. The Contractor is required to obtain all construction permits required for this project.

END OF SECTION

SECTION 02060

DEMOLITION

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Demolition work as shown on the Drawings and specified herein:

1.02 QUALITY ASSURANCE

- A. Comply with all laws, rules and regulations of governmental authorities having jurisdiction over the demolition work.
- B. Provide protection for persons and property in accordance with ANSI/NFPA 241.
- C. Obtain and pay for all permits and licenses.
- D. Provide rodent control as required.

1.03 REFERENCES

- A. American National Standards Institute (ANSI):

1.04 PROTECTION

- A. Provide all temporary barricades, canopies, fences, railings, platforms, lights, sheds, etc., required to protect the workmen, Owner's personnel and others from injury due to the demolition work. Provide free and safe passage of persons to and from buildings and facilities which are to remain.
- B. Repair any damage to property of the Owner which is to remain in use, or that of any person, or persons on or off the site caused by the demolition work without additional expense to the Owner.
- C. Maintain regular traffic flow around the site unless otherwise directed.

1.05 FIRE PREVENTION

- A. Perform the demolition work in such a manner as to prevent fires. Remove debris promptly. No materials shall be burned on the site.
- B. Protect combustible materials.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Not applicable.

PART 3 EXECUTION

3.01 UTILITY SERVICES

- A. Protect and maintain existing utility lines which are to remain in service in such a manner as to avoid interruption of these lines. Cap all utility lines terminated by the demolition work in a manner approved by the governmental authorities and utility companies having jurisdiction.
- B. Existing asphalt and concrete items shall be sawcut prior to removal to ensure a clean, straight line of demolition.

3.02 SCHEDULE OF WORK

- A. For each address or work location, any demolition, construction, backfill, restoration and clean-up work shall be executed within 10 business days start to finish.

END OF SECTION

SECTION 02080

TRAFFIC, PROPERTY AND UTILITY MAINTENANCE AND COORDINATION

PART 1 GENERAL

1.01 WORK INCLUDED

- A. The work includes providing all materials, equipment, labor and services required to regulate and coordinate traffic, to protect and maintain property, to notify the public of work conditions, and to coordinate the work with the respective Utility Companies.

1.02 SITE

- A. The Contractor shall, at his expense, maintain the work site in a clean and orderly appearance at all times. All debris and surplus material collected shall be disposed of off the work site by the Contractor, at his expense. Access for emergency vehicles shall be maintained at all times.

1.03 REFERENCES

- A. Virginia Erosion and Sediment Control Handbook latest revision.
- B. Virginia Department of Transportation - Road and Bridge Specifications and Standard Details - latest revisions.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.01 TRAFFIC MAINTENANCE AND COORDINATION

- A. The Contractor shall maintain through traffic at all times. (One lane of traffic shall be maintained at all times and flagmen shall be provided at all times work is in progress and traffic must be controlled in accordance with applicable AASHTO, VDOT, etc. criteria.) The Contractor shall not close or excavate within the right-of-way of a street or alley without obtaining Right-of-Way Excavation (Street Opening) permit through the City's Development Assistance Center.
- B. When work conditions dictate that a street or part of a street be closed to traffic, the Contractor shall provide and maintain, at his expense, all signs, barricades and flashing lights necessary to physically close a street or part of a street adjacent to work area. The Contractor shall provide and maintain all traffic control devices and signs required to coordinate and detour the through traffic around the closed street.

- C. The Contractor shall provide and maintain, at his expense, all signs, cones, stands and flagmen required to control and protect traffic passing through a work zone. Cones shall be 36 inches high and shall have a maximum spacing of 30 feet.
- D. The method of controlling the traffic passing through a work zone and the barricades required for closing a street to traffic shall be in accordance with the Traffic Control Details included herein. All traffic control and street closed signs shall be in accordance with the State and Federal "Manual on Uniform Traffic Control Devices."
- E. The Contractor shall keep all street intersections open to traffic, when practical. When work is perpendicular to the street, the Contractor shall work in no more than one-half (1/2) of the street width, at one time. The first half of work must be completed and the street passable prior to working in the second half.
- F. The Contractor shall provide and maintain a safe and passable pedestrian access for the public conducting business or residing within the work area. Sidewalks shall remain clear and open at all times during the work, unless approved otherwise by the Owner or local governing authorities.
- G. The Contractor shall provide the necessary diversion ditches, dikes or temporary culverts required to prevent mud and debris from being washed onto the streets or property. The Contractor's vehicles shall be kept clean to prevent mud or dust from being deposited on streets.

3.02 PROPERTY MAINTENANCE AND COORDINATION

- A. The Contractor shall notify the property owner(s) forty-eight (48) hours prior to working within easements located upon private property in order to coordinate a means of ingress and egress to the work area and determine a storage area for materials.
- B. The Contractor shall maintain a safe and passable vehicular entrance to all private and public property. The Contractor shall notify the property owner(s) twenty-four (24) hours in advance of the blocking of an entrance.
- C. The Contractor shall notify the owner(s) of animals' forty-eight (48) hours prior to working upon the property to allow the owner time to relocate the animals, if possible. The Contractor shall maintain the integrity of the existing fences and gates during the work.
- D. Existing lawn, trees, shrubs, fences, utilities, culverts, walls, walks, driveways, poles, signs, right-of-way monuments, property pins, mailboxes and the like shall be protected from damage during the work under this contract. Any damage caused to such items shall be repaired or replaced by the Contractor at his expense.

- E. Tree and plant roots or branches that may interfere with the work shall be trimmed or cut only with the approval of the City of Roanoke. Any trees or plants which are shown to remain and do not interfere with the work but are accidentally damaged by the work shall be repaired or replaced by the Contractor, at his expense.

3.03 UTILITY MAINTENANCE AND COORDINATION

- A. Before the work is started, the Contractor shall notify all companies, corporations, municipalities and individuals who own utilities on the construction site, in the right of way or immediately adjacent to the construction area of the work to be performed. The Contractor shall arrange to have the various utilities located and to have them removed or relocated as required, or to determine the method of protection acceptable to the respective owner, if the method of protection is not specified hereinafter. Any cost incurred with removing or relocating utilities shall be borne by the Contractor unless indicated otherwise.
- B. The location of existing utilities shown on the drawings was taken in part from existing records and in part from field surveys, and may not represent exact location. The Contractor shall excavate to locate buried utilities far enough in advance of pipeline laying to allow for adjustments in pipelaying both horizontally and vertically.
- C. The work shall be coordinated and performed in a manner so that all existing fire hydrants, without exception, shall be accessible at any time during the work.
- D. The Contractor shall maintain the existing streams, ditches, drainage structures, culverts and flows at all times during the work. The Contractor shall pay for all personal injury and property damage which may occur as a result of failing to facilitate drainage.
- E. The Contractor shall ascertain the exact location of each existing utility that may interfere with the work. The Contractor may obtain field utility locations by calling "Miss Utility" (1-800-552-7001) forty-eight (48) hours prior to working in the vicinity of existing utilities. If the utilities fail to locate, a second call shall be made providing an additional three (3) hour notice.
- F. The Contractor shall repair or replace any existing sanitary sewer or storm drain utility damaged or misaligned during or due to the work. All other utilities shall be repaired or replaced by the respective Utility Company(s) at the expense of the Contractor.
- G. The Contractor shall coordinate all work within the vicinity of the existing utilities with the respective Utility Company. The work shall be conducted in a manner to avoid unnecessary service interruption and in accordance with the rules and regulations of the respective Utility Company.

- H. When the work is approaching an existing utility or structure that may be in conflict with, or connected to, the work; the Contractor shall excavate test pits to verify the location or elevation of the existing utility or structure. By taking this precaution the Contractor may adjust the work or have the existing utility relocated as necessary. Failure to take such precautions may result in the Contractor adjusting the work or having the existing utility relocated, at his expense.
- I. When the existing utilities cross the trench excavation, the existing utilities shall be adequately supported and protected from damage due to the work as required, specified or directed. All methods for supporting and maintaining the existing utilities shall be subject to the approval of the respective Utility Company and the Owner. Any utilities removed as part of the work, and not indicated to be removed or abandoned, shall be restored using materials and installation equal to the utility's standards.
- J. The Contractor shall exercise care to insure that the grade and alignment of the existing utility be maintained and that no joints or connections are disturbed. Backfill shall be carefully placed and compacted to prevent the future damage or settlement to the existing utility.

3.04 PROTECTION OF PUBLIC AND PROPERTY

- A. The Contractor shall comply with all local, state and federal laws and the Occupational Safety and Health Act in protecting the public, the worksite, and adjacent property from damage. The Contractor shall provide all sheeting, shoring, barricades, trench boxes, warning lights, signs, and fences required for this protection.

END OF SECTION

Section 02750

Shoulder Restoration for Curb, Sidewalk, and Concrete Channel Construction

1. General
 - 1.1. Section includes the requirements for the proper shoulder restoration for curb, gutter, sidewalk, and concrete channel installation. *For curb, gutter and sidewalk applications, the shoulder restoration applies to any disturbed area between the back of curb and private property line. For concrete lined channels or ditches, the shoulder is defined as any area that is disturbed in order to construct the feature and to provide smooth transition back to existing grades.* In addition, this section covers requirements on driveway restoration when installing entrances.
 - 1.2. Related Sections
 - 1.2.1. Section 02910 Topsoil
 - 1.3. References
 - 1.3.1. City of Roanoke Right of Way Excavation and Restoration Standards, latest edition.
 - 1.3.2. ASTM D698 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbs/ft³), Standard Proctor.
 - 1.4. Quality Assurance – Not Used
 - 1.5. Submittals – Seeding Mix
2. Products
 - 2.1. Backfill Subsurface material
 - 2.1.1. ASTM D2487. Classification GW, GP, GM, GC, SW, SP, SM, SC, CL, CH and MH.
 - 2.1.2. Soil material free of debris, roots, wood, scrap metal, vegetation, refuse, soft unsound particles, and frozen deleterious or objectionable materials. The maximum particle diameter shall be ½ the lift thickness.
 - 2.1.3. VDOT No. 21-A Aggregate in accordance with VDOT Road and Bridge Specifications, Section 208
 - 2.2. Topsoil – See Section 02910 Topsoil
 - 2.3. Seeding Specification – Southern Lawn Fescue blend (Blue-tag certified)
 - 2.4. Mulch – Oat, rye or wheat straw, free of seed. **Contractor shall not use hay.**
 - 2.5. Water for irrigation - Shall be clean, fresh, and free from harmful substances.
3. Execution
 - 3.1. Shoulder Restoration
 - 3.1.1. Backfilling – Place General fill in eight (8) inch loose layers and compact to at least ninety-five (95) percent of the material's maximum dry density as determined by ASTM D698, Standard Proctor. Contractor shall **not** backfill with concrete debris.
 - 3.1.2. Fine Grading – See Section 02910 -Topsoil
 - 3.1.3. Seeding – Contractor shall apply seed at 7 lbs per 1,000 square feet.

- 3.1.4. Mulching – Contractor shall apply continuous straw bale coverage at 2 bales per 1,000 square feet. Immediately water straw after application.
 - 3.1.5. Watering – As required to achieve a good, healthy, growing state.
 - 3.2. Driveway Connections
 - 3.2.1. Contractor shall properly construct entrances to provide smooth transitions to existing driveways. Restoration material for driveways shall match existing material conditions. Saw cut edges of existing pavement or curb.
 - 3.3. Quality Control - Contractor shall provide a finished lawn. All grass shall appear in a good, healthy, growing state.
4. For each address or work location, any demolition, construction, backfill, restoration and clean-up work shall be executed within 10 business days start to finish.

END OF SECTION

Section 02910

Topsoil

1. General

- 1.1. Section includes the requirements for the proper installation of topsoil on a previously prepared subgrade.
- 1.2. Related Sections – Not Used
- 1.3. References – Not Used
- 1.4. Quality Assurance – Not Used
- 1.5. Submittals
 - 1.5.1. Submit copy of delivery tickets identifying imported topsoil as Rockydale “manufactured topsoil” or submit soil analysis report for imported topsoil from the Virginia Tech Agricultural Service or other approved testing laboratory. Report shall cover soil textural classification (percentages of sand, silt, and clay) and include additive recommendations. Both testing and incorporating recommend additives shall be at the expense of the Contractor.
 - 1.5.2. Submit soil analysis report for reuse of existing on-site topsoil from the Virginia Tech Agricultural Service or other approved testing laboratory. Report shall cover soil textural classification (percentages of sand, silt, and clay) and include additive recommendations. Both testing and incorporating recommend additives shall be at the expense of the Contractor.

2. Products

- 2.1. Imported Topsoil – Imported topsoil shall be Rockydale “manufactured topsoil” or an approved equal meeting 2.1.1, 2.1.2, and 2.1.3 below.
 - 2.1.1. Topsoil shall be fertile, friable, loamy soil, containing 1 to 10 percent organic matter; free from subsoil, refuse, roots, heavy or stiff clay, stones larger than 1 inch, coarse sand, noxious seeds, sticks, brush, litter and other deleterious substances; suitable for the germination of seeds and support of vegetative growth. The pH value shall be between 6.0 to 7.0.
 - 2.1.2. Soil Texture shall be Sand (20 to 70 percent), Silt (10 to 60 percent), and Clay (5 to 30 percent).
 - 2.1.3. Additives: As determined by soil fertility tests (See Submittals 1.5.1).
- 2.2. Reuse of Existing On-Site Topsoil - If the Contractor wishes to reuse existing on-site topsoil, a soil analysis report, as outlined in 1.5.1, shall be submitted to the City project manager for review. The criteria outlined in 2.1 shall be enforced for the existing material. If the topsoil does not satisfy the criteria in 2.1 then imported topsoil shall be required. All existing topsoil, targeted for reuse, shall be properly stockpiled in an orderly manner.

3. Execution

Scarify compacted subgrade to a 2-inch depth to bond topsoil to subsoil. Place topsoil to a minimum thickness of 4 inches and roll lightly. Spread evenly and grade to provide positive drainage and make the area “mowable” as approved by the Transportation Division Manager. Hand rake areas inaccessible to machine grading.

END OF SECTION

Section 03100

Incidental Concrete

1. General

- 1.1. Section includes the requirements for proper installation of
 - 1.1.1. Curb and gutter
 - 1.1.2. Concrete Residential Driveway or Commercial entrances
 - 1.1.3. Concrete Sidewalk and Handicap Ramps
 - 1.1.4. Concrete lined ditches and channels
- 1.2. Related Sections
 - 1.2.1. Section 02750 Shoulder Restoration for Curb, Sidewalk and Concrete Channel Construction
 - 1.2.2. Section 02751 Asphalt Restoration for Curb Construction
- 1.3. References
 - 1.3.1. ACI 304R -Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International; 2000.
 - 1.3.2. ACI 308 -Standard Practice for Curing Concrete; American Concrete Institute International; 2001.
 - 1.3.3. ASTM A 185 -Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete; 2002.
 - 1.3.4. ASTM A 615/A 615M -Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; 2004.
 - 1.3.5. ASTM D698 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbs/ft³), Standard Proctor.
 - 1.3.6. VDOT Road and Bridge Standards and Specifications, latest edition.
 - 1.3.7. City of Roanoke Right of Way Excavation and Restorations, latest revision.
- 1.4. Quality Assurance
 - 1.4.1. Specified concrete strengths shall be obtained at the 28-day break. Averaging, as defined by ACI or ASTM methodologies, of compression break results shall not be permitted. The City reserves the right to test any portion of the concrete work.
 - 1.4.2. Any concrete represented by a test which indicates a strength which is less than the specified 28-day compressive strength will be rejected and shall be removed and replaced with acceptable concrete at no expense to the City. Such rejection shall prevail unless the Contractor, at his expense, obtains and submits evidence acceptable to Transportation Division Manager that the strength and quality of the reject is acceptable. If such evidence consists of cores taken from the work, the cores shall be obtained and tested in accordance with the standard methods of ASTM C42.
- 1.5. Submittals
 - 1.5.1. Concrete mix design
 - 1.5.2. High early admixture

2. Products

- 2.1. Concrete

- 2.1.1. Concrete shall be **Class A4 (4,000 psi) high-early strength** General conforming to VDOT Road and Bridge Standards, Section 217 having uniform gray color portland cement and gray color clean hard sand fine aggregate.
- 2.2. Concrete Accessories
 - 2.2.1. Curing Compound: Curing Compound shall be liquid membrane seal containing no pigment (clear) conforming to ASTM C309, Type 1-D.
 - 2.2.2. Neenah Foundry Detectable Warning Plates (2'x2') for handicap ramps, Color = Brick Red. Each handicap ramp shall have two plates for a combined 4'x2' warning surface.
- 2.3. Joint Material
 - 2.3.1. Isolation Joint Filler: Joint filler conforming to ASTM D 1751.
 - 2.3.2. Expansion Joint Filler:
 - 2.3.2.1. Preformed asphalt joint filler conforming to AASHTO M213.
 - 2.3.2.2. Sponge rubber joint filler conforming to AASHTO M153, Type I.
 - 2.3.3. Not used.
 - 2.3.3.1. L & M Construction Chemicals, Inc., Pentane-40.
 - 2.3.3.2. W.R. Meadows #164, "HI-SPEC, cold applied SOF-SEAL"
- 2.4. Bedding - VDOT No. 21A Aggregate in accordance with VDOT Road and Bridge Specifications, Section 208.

3. Execution

- 3.1. Preparation
 - 3.1.1. Sawcut edges of existing pavement or curb.
 - 3.1.2. If curb and gutter is being added to existing pavement, sawcut pavement 12" from the proposed edge of curb and gutter. The 12" gap shall allow space for proper installation of concrete and re-compaction.
 - 3.1.3. Verify that compacted subgrade is dry and ready to support concrete placement.
 - 3.1.4. Verify lines, levels, and dimensions before proceeding with work of this section.
- 3.2. Construction
 - 3.2.1. Construct curb and gutter, sidewalk, handicap ramps and concrete lined ditches where shown on plans and in accordance with VDOT Road and Bridge Specifications and plan details. CG-2 curbs shall be constructed to a depth of 18 inches. CG-6 curbs shall be constructed to a depth of 13 inches.
 - 3.2.2. Construct and compact a 4" aggregate base of VDOT 21A under all concrete work associated with this Section. Remove soft or yielding areas and backfill with VDOT 21A aggregate. All aggregate base shall be compacted to at least ninety-five (95) percent of the material's maximum dry density as determined by ASTM D698, Standard Proctor.
 - 3.2.3. Install forms in straight lines or smooth curves as shown on the plans.
- 3.3. Curb and Gutter
 - 3.3.1. Concrete curb and gutter shall be formed in accordance with Section 502 of the VDOT Road and Bridge Specifications on the grades indicated on the plan.

- 3.3.2. Forms for curb and gutter shall be steel and in good condition. Existing asphalt or other material shall not be used as a concrete form.
- 3.3.3. Joints for Curb and Gutter
 - 3.3.3.1. Construct contraction joints (1/2" deep by 1/8" wide) for crack control at approximate five (5) foot intervals.
 - 3.3.3.2. Construct expansion joints at approximate 50 foot intervals, points of curvature, all radii points at concrete entrances and curb returns and at any drainage structure (i.e. curb inlets or drop inlets), and any other above grade utility structure. Expansion joints shall extend through the concrete with the void filled with one half (1/2) inch joint filler.
 - 3.3.3.3. Construct expansion joints where new concrete work is constructed next to existing concrete work, "cold joints", or when time elapsing consecutive concrete placement exceeds 60 minutes.
- 3.3.4. Curb and gutter shall not require steel reinforcement.
- 3.3.5. When replacing or connecting to the **old** City of Roanoke Standard 7" curb, the Contractor shall transition from the new curb height of 6" to the 7" curb over a span of 10'. However, if the length of the new curb is less than 100', the Contractor shall match the existing 7" curb for the entire construction. Contractor shall match existing curb height if less than six (6) inches.

3.4. *Concrete Sidewalk Crossing Driveway Entrance*

- 3.4.1. Concrete sidewalk crossing driveway entrance shall be constructed in accordance with City of Roanoke standards.
- 3.4.2. Sidewalks crossing driveway entrances shall be a minimum of 5 feet wide, constructed 7 inches thick, of VDOT A4 concrete with high-early admixture (A4 (4000 psi) high early strength).
- 3.4.3. Unless shown in the plans, all sidewalks shall maintain a ¼ inch per foot transverse slope.
- 3.4.4. Forms for sidewalk shall be steel and in good condition. Existing asphalt or other material shall not be used as a concrete form.
- 3.4.5. Joints for Concrete Sidewalk Construct contraction joints (1/8" wide by ½" deep) for crack control at approximately five (5) foot intervals unless plans specify otherwise.
- 3.4.6. Where slabs are more than seven (7) feet in width, contraction joints shall be formed longitudinally to obtain uniform blocks.
- 3.4.7. Expansion joints shall be constructed at intervals of approximately 50 feet. Slabs shall be separated by transverse preformed joint filler, ½ inch in thickness that extends from the bottom of the slab to top surface.
- 3.4.8. Expansion joints shall be used to separate sidewalk slabs and curbs.

3.5. *Concrete Sidewalk*

- 3.5.1. Sidewalk shall be constructed in accordance with City of Roanoke Standards. In addition, sidewalks shall be a minimum of 5 feet wide, 4 inches thick and shall be constructed with 4000 psi high-early strength

- concrete unless the ambient temperature is 70 degrees Fahrenheit or above when the concrete is poured.
- 3.5.1.1. Sidewalks crossing driveway entrances shall be constructed 7 inches thick, of VDOT A4 concrete with high-early admixture (A4 (4000 psi) high early strength).
 - 3.5.2. Unless shown on the plans, all sidewalks shall maintain a ¼ inch per foot transverse slope.
 - 3.5.3. Forms for sidewalk shall be steel and in good condition. Existing asphalt or other material shall not be used as a concrete form.
 - 3.5.4. Joints for Concrete Sidewalk
 - 3.5.4.1. Construct contraction joints (1/8" wide by ½" deep) for crack control at approximate five (5) foot intervals unless plans specify otherwise.
 - 3.5.4.2. Where slabs are more than seven (7) feet in width, contraction joints shall be formed longitudinally to obtain uniform blocks.
 - 3.5.4.3. Expansion joints shall be constructed at intervals of approximately 50 feet. Slabs shall be separated by transverse preformed joint filler, ½ inch in thickness that extends from the bottom of the slab to top surface.
 - 3.5.4.4. Expansion joints shall be used to separate sidewalk slabs and curb.
 - 3.6. *Concrete Handicap Ramps*
 - 3.6.1. Sidewalk shall be constructed in accordance with City of Roanoke Standards. In addition, ramps shall be 7 inches thick.
 - 3.6.2. ADA compliant handicap ramps shall be constructed at all street intersections and at other major points of pedestrian crossing. Each ramp shall have a detectable warning surface at least 2' long x 4' wide (2 Neenah plates, powder coated red) facing each crosswalk direction (not at a 45° angle). The detectable warning surface width shall be increased to 5' for sidewalks which are 5 feet wide. Pressing or forming the detectable warning surface in the concrete shall not be allowed.
 - 3.7. *Placing Concrete*
 - 3.7.1. Place concrete in accordance with ACI 304R.
 - 3.7.2. Install joint devices in accordance with manufacturer's instructions.
 - 3.7.3. Place concrete continuously between predetermined expansion, control, and construction joints. No concrete shall be poured when the outside temperature is 40 degrees and falling.
 - 3.7.4. Cold weather curing shall be utilized when the temperature is 50 degrees to 40 degrees. No additional compensation shall be made for cold weather curing.
 - 3.7.4.1. Routine cold weather curing shall include heating blankets. Calcium chloride admixture, conforming to AASHTO designation M144, type 2, shall not be used in any concrete reinforced with bars or welded wire fabric.
 - 3.7.5. Hot weather curing shall be utilized when the temperature is 80 degrees or above. No additional compensation shall be made for hot weather curing.
 - 3.7.5.1. Routine hot weather curing measures shall include cooling forms and wetting subgrade in addition to other measures.

- 3.7.6. Concrete shall be placed in the forms in such a manner as to prevent the segregation of the mortar and the aggregate. The concrete shall be spaded, tamped, or vibrated sufficiently to bring the mortar to the surface. Concrete shall not be dropped a distance of more than 5 feet.
- 3.8. *Concrete Finishing*
 - 3.8.1. Concrete surfaces shall be worked and dressed with a consistent "broom" finish.
 - 3.8.2. Edges shall be tooled to produce a rounded edge with approximate one eighth (1/8) inch radius.
 - 3.8.3. The Contractor shall apply a "light broom finish" perpendicular to the street for all sidewalks.
 - 3.8.4. The Contractor shall apply a "light broom finish" parallel to the flow line for all curbs, gutters, and channels.
 - 3.8.5. The Contractor shall apply a "coarse broom finish" parallel to the street for all entrances.
- 3.9. *Curing and Protection*
 - 3.9.1. Comply with requirements of ACI 308. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
 - 3.9.2. Curing compound shall be applied at the rate of one (1) gallon per one hundred fifty (150) square feet to concrete surfaces for curing.
- 3.10. *Field Quality Control*
 - 3.10.1. All exposed concrete shall be air entrained with air content conforming to the requirements of Table II-17, Section 217 of the VDOT Road and Bridge Specification.
 - 3.10.2. Concrete slump shall be between 1 and 3 inches.
 - 3.10.3. Surfaces of concrete shall be true to line and grade. Surfaces shall not vary more than one quarter (1/4) inch per foot in five (5) feet, except where otherwise indicated.
 - 3.10.4. Gutter pans shall have 2" drop to the front of the curb in accordance with VDOT standards. Drops less than 2" or flat gutter pans shall not be accepted.
 - 3.10.5. The existing pavement shall not be used as a front form for curb and gutter construction.
- 3.11. *Protection of Concrete*
 - 3.11.1. Protect new concrete sidewalks from pedestrian traffic for a minimum of 24 hours. Erect and maintain warning signs and lights to protect and direct pedestrian traffic.
 - 3.11.2. Protect curb and gutter from vehicular traffic for a minimum of 2 days due to high early strength. Erect and maintain warning signs and lights to direct traffic as needed.

- 3.11.3. Protect entrances for a minimum of 2 days due to high early strength. Erect and maintain warning signs and lights to direct traffic as needed. The Contractor shall notify the property owner(s) twelve (12) hours in advance of the blocking of an entrance. The entrance shall not be blocked for more than twelve (12) hours at any one time, without approval of the Owner.
- 3.12. *Defective Concrete*
- 3.12.1. Any defective concrete shall be removed and replaced at the contractor's expense.
- 3.14 For each address or work location, any demolition, construction, backfill, restoration and clean-up work shall be executed within 10 business days start to finish.

END OF SECTION